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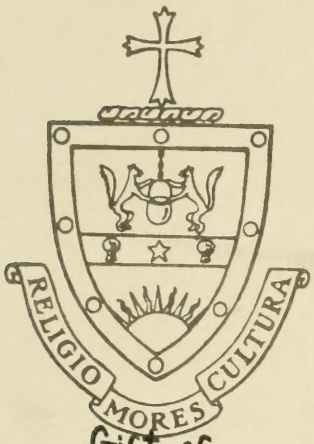

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Chief of Department of Mines

REPORTS

OF THE

INSPECTORS OF COAL MINES

OF PENNSYLVANIA.

1895.

With a summary of coal production, etc., prepared by the Department of Internal Affairs.

CLARENCE M. BUSCH,
STATE PRINTER OF PENNSYLVANIA.
1896.

VIRTUE
LIBERTY AND
INDEPENDENCE

REPORTS

OF THE

INSPECTORS OF MINES.

COMMUNICATION.

Department of Internal Affairs,
Harrisburg, April 15, 1896.

To His Excellency, Daniel H. Hastings, Governor of Pennsylvania:

Sir: In compliance with the requirements of the Act of June 30, 1885, relative to the Mine Inspectors' Reports of the Anthracite and Bituminous coal regions, and of the Act of April 23, 1889, and of June 2, 1891, I have the honor to present to you for transmission to the General Assembly the reports of the Inspectors of this Commonwealth for the year 1895.

Very respectfully,
JAMES W. LATTA,
Secretary of Internal Affairs.

REPORT.

Suggestions Relative to Needed Legislation.

In submitting the report of the mine Inspectors for the year ending December 31, 1895, it seems proper to call the attention of the Legislature to some of the defects that exist in the present mine laws of the Commonwealth, at least so far as they relate to the Department of Internal Affairs. The acts of 1891 which regulate the mining of coal in Pennsylvania, provide for the appointment of mine Inspectors in both the anthracite and bituminous regions, and prescribe their duties. Among other things they are required to make annual reports to the Secretary of Internal Affairs to be published by him as soon after their receipt as may be convenient. By virtue of existing laws there are eight mine Inspectors in the anthracite region and ten in the bituminous region.

So far as is provided by law these mining districts are independent departments connected with the Department of Internal Affairs and the Inspectors are not accountable to any one in particular for their acts to the extent they should be. To state the case in another form, there is no State official who has general supervision over them or who can give directions as to how they shall discharge the numerous duties imposed upon them by law. It is true the Secretary of Internal Affairs is to receive and become the custodian of their annual reports, but he is without power to prescribe how the reports shall be made or the form that shall be used in collecting and compiling the information which it was the intention of the Legislature should be annually gathered and published. While the mine Inspectors, as a rule, acknowledge that they must be responsible to some State official, and very generally comply with the suggestions made by the Secretary of Internal Affairs, as to the making of reports and the discharge of their duties, it is entirely due to their sense of propriety. There is an entire absence of law that would enable the Secretary to require any general or specific action on the part of the Inspectors, and it therefore seems highly proper, and indeed necessary that the Legislature should either clothe the Secretary with additional powers relative to the mine Inspectors and the execution of the laws now in force, or provide another State official who shall have such powers and authority. During the session of the Legislature of 1895, several suggestions were made in regard to perfecting

the mining laws in the direction indicated, and some of them were embodied in a bill providing for the establishment of a separate department to be known as the Mining Department, but this bill failed to become a law. It is probable, however, that a similar measure will be presented at the next session of the Legislature. If a careful study is made of the article of the Constitution that authorized the establishment of the Department of Internal Affairs, and of the laws passed immediately after the adoption of the Constitution, it will be apparent that it was the intention of the framers of the Constitution, and especially of the Legislature of 1874, which put in force the provisions of the Constitution, that this Department should embrace many subjects of governmental control that have since been made separate departments. To state one case, the Bureau of Industrial Statistics of the Department of Internal Affairs was given authority to make thorough investigations annually of the condition of the laboring classes of the Commonwealth, with a view of advancing their interests, and to make such suggestions as might contribute to their benefit. Recently a law was passed to establish a Factory Inspector's Department, which has to a very large extent the same duties imposed upon it. Other cases might be cited to show clearly that there has been a departure from the original idea that seemed to control the constitutional convention when it established the Department of Internal Affairs. It seems to have been the desire that this Department should be considered in a similar light to the Department of the Interior of the National government, and that whatever governmental control might be found necessary in the development of the internal interests of the State should be provided for in this department and under the general supervision of the Secretary. If this were the intentions of the convention, it seems entirely proper that whatever duties are prescribed with reference to the mining interests of the Commonwealth, should be imposed upon the Secretary of Internal Affairs. Certain it is that the expenses of such supervision would be much less to the Commonwealth than if a separate department were to be established, and it is probable that equally good results could be obtained by the establishment of a Mining Bureau in this Department under the direction of the Secretary, with a chief at the head of the same possessing the qualifications necessary to enable him to take supervision of the mine Inspectors and see that the mining laws were properly and faithfully executed. It is possible that this idea might not be so popular among those who would like to have charge of a mining department and the places therein, but it seems to have been the original idea that controled the constitutional convention at the time of the establishment of the Department of Internal Affairs, and looking at the matter from an economical standpoint, as well as from a desire

to have good results produced through the mining laws of this Commonwealth, it is believed that the most feasible way would be to establish a Mining Bureau under the supervision of the Secretary of Internal Affairs.

Under the present law it is somewhat difficult to obtain reports from some of the mine Inspectors. The publication of the annual report of the department for 1895 has been greatly delayed by one of the Inspectors who failed to make his report within a reasonable time. Several letters were written him, calling his attention to the necessity for prompt action, and he was finally notified by telegraph that unless his report was received by a certain date the manuscript for the annual report already received would be given to the State Printer, without the data from his district. His report was soon after received, and is included herewith, though as a public official his negligence is deserving of censure.

Publication of Mining Laws.

At the session of the Legislature of 1895 a resolution was introduced on the 8th of February as follows:

"Resolved, if the Senate concur, that the Secretary of Internal Affairs be and he is hereby authorized to have published each year in his annual report on the mining industry, a copy of the laws regulating mining in both the anthracite and bituminous regions of Pennsylvania."

Pursuant to the requirements of this resolution the general mining laws of the Commonwealth are printed herewith for the information of the public.

MINING STATISTICS.

Anthracite Coal Region.

The total number of tons of coal produced in this region during the year 1895 was 50,847,104; in 1894, 45,506,179; in 1893, 47,179,563; in 1892, 45,738,373; in 1891, 44,376,180. It will be seen from these figures that the largest production was in 1895, there having been an increase in that year of 5,340,925 tons over that of the preceding year, and 6,470,924 tons over the year 1891. It will also be observed that from 1891 to 1894 inclusive there was but little change in the annual production.

Employes.

During the year 1895 the number of employes in the anthracite region was 143,605; in 1894, 139,695; in 1893, 138,021; in 1892, 130,197; in 1891, 123,055. It is somewhat remarkable that while the number of employes in 1894 was greater than in 1893, the production of coal in the latter year was much greater than in the former. This discrepency may have been caused by strikes or suspension of operations in 1894.

Fatal and Non-Fatal Accidents.

Among the 143,605 employes in 1895 there were 420 fatal accidents, and 1,075 non-fatal accidents. While the production of coal in 1895 was more than five millions tons greater than in 1894, the number of fatal accidents was less, being 420 as against 439; but the number of non-fatal accidents was greater, being 1,075 as against 919. In 1893 the number of fatal accidents was 445; non-fatal, 1,069. In 1892 the number of fatal accidents was 396; non-fatal, 1,023. In 1891 the number of fatal accidents was 427; non-fatal, 1,003. An analysis of the 420 fatal accidents in 1895 shows that 151 were caused by falling coal, 41 by falling rock, slate, etc. from the roofs of the mines, 28 from premature explosions of blasts.

The ratio of fatal and non-fatal accidents to the number of employes during the last five years was as follows:

Fatal Accidents.	*Non-Fatal Accidents.*
1895, 1 to 342 employes.	1895, 1 to 133 employes.
1894, 1 to 318 employes.	1894, 1 to 152 employes.
1893, 1 to 310 employes.	1893, 1 to 129 employes.
1892, 1 to 328 employes.	1892, 1 to 127 employes.
1891, 1 to 288 employes.	1891, 1 to 123 employes.

These figures indicate that the conditions surrounding the mining of coal are now less hazardous than formerly. In other words the improved methods and the safety appliances and apparatus which the law requires, have contributed largely to the safety of the miner. A further investigation of the reports of the Inspectors shows that the number of tons of coal mined to each fatal and non-fatal accident was as follows:

Fatal Accidents.	*Non-Fatal Accidents.*
1895, 1 to 121,063 tons.	1895, 1 to 47,300 tons.
1894, 1 to 103,659 tons.	1894, 1 to 49,516 tons.
1893, 1 to 106,021 tons.	1893, 1 to 44,134 tons.
1892, 1 to 115,501 tons.	1892, 1 to 44,710 tons.
1891, 1 to 103,925 tons.	1891, 1 to 44,243 tons.

These figures also indicate that the miner had greater freedom from both fatal and non-fatal accidents in 1895 than ever before.

Bituminous Coal Region.

The total number of tons of coal produced in this region during the year 1895 was 51,813,112; in 1894, 39,800,210; in 1893, 43,421,898; in 1892, 46,576,576; in 1891, 41,787,644. As in the case of the anthracite coal, the largest production was in 1895, that year showing an increase over 1894 of 12,012,902 tons, and over 1891 of 10,025,468 tons. It is somewhat remarkable that the production in the two regions is so nearly equal, although the increase has been larger in the last five years in the bituminous region.

Employes.

During the year 1895 the number of employes was 84,904; in 1894, 86,177; in 1893, 81,800; in 1892, 78,789; in 1891, 73,923. The most striking observation to be made in regard to these figures is that the 84,904 employes of 1895 produced upwards of 51,000,000 of tons, while the 86,177 employes of 1894 produced less than 40,000,000 of tons. This would indicate that strikes or suspensions of operations causing much idleness occurred in the latter year.

Fatal and Non-Fatal Accidents.

Among the 84,904 employes in 1895 there were 155 fatal accidents, and 419 non-fatal; in 1894, 124 fatal and 357 non-fatal; in 1893, 131 fatal and 346 non-fatal; in 1892, 133 fatal and 393 non-fatal; in 1891, 237 fatal and 314 non-fatal. An analysis of the accidents in 1895 shows that of the 155 fatal accidents 16 were caused by the falling of coal, 87 by the falling of roof, rock, slate, etc., 3 by premature explosions of blasts, 2 by explosions of powder, dynamite, etc., 5 by ex-

plosions of gas, 1 by falling down shaft, 30 by being run over by cars, etc., and 13 from miscellaneous causes.

The ratio of fatal and non-fatal accidents to the number of employes during the last five years was as follows:

Fatal Accidents.	*Non-Fatal Accidents.*
1895, 1 to 544 employes.	1895, 1 to 202 employes.
1894, 1 to 695 employes.	1894, 1 to 241 employes.
1893, 1 to 624 employes.	1893, 1 to 236 employes.
1892, 1 to 592 employes.	1892, 1 to 200 employes.
1891, 1 to 312 employes.	1891, 1 to 235 employes.

The ratio of fatal and non-fatal accidents to the number of tons mined was as follows:

Fatal Accidents.	*Non-Fatal Accidents.*
1895, 1 to 322,135 tons.	1895, 1 to 123,659 tons.
1894, 1 to 320,969 tons.	1894, 1 to 111,485 tons.
1893, 1 to 331,465 tons.	1893, 1 to 125,497 tons.
1892, 1 to 350,199 tons.	1892, 1 to 118,518 tons.
1891, 1 to 167,880 tons.	1891, 1 to 133,081 tons.

These figures do not indicate the improvement in the conditions with reference to the freedom from accident that exist in the anthracite region, but while this is true, they show that there is greater liability to accident in the anthracite region than in the bituminous region. This is shown very clearly by the fact that in the former region, with practically the same production of coal, the number of fatal accidents in 1895 was 420 as against 156 in the latter region, and the number of non-fatal accidents 1,075, as against 419.

Production of Anthracite Coal by Counties.

The table herewith shows the quantity of anthracite coal produced in each of the counties named for the years 1891 to 1895 inclusive. Luzerne county still heads the list with 19,143,101 tons in 1895, an increase since 1891 of about 1,500,000 tons. The next largest producing county is Lackawanna with 11,859,382 tons. It will be seen from these figures that during the past four years there has been but little change in the production in this county. Schuylkill follows closely with 11,495,388 tons. Sullivan county produced the smallest quantity, to wit, 152,141 tons.

Production of Bituminous Coal by Counties.

The table herewith shows the quantity of bituminous coal produced in each of the counties named, for the years 1891 to 1895 inclusive. Westmoreland county heads the list with 10,325,245 tons for 1895, as against 7,605,867 tons in 1891. The next in production is Fayette with 10,124,541, as against 5,758,200 tons in 1891. These

figures indicate a greater increase in Fayette than Westmoreland. In 1895 Allegheny produced 7,146,699 tons, and is third in the list, followed by Clearfield with 5,442,299 tons. There are 29 counties in the bituminous region.

The same table shows the total coke production to have been as follows: in 1895, 8,922,329 tons; in 1894, 5,729,244 tons; in 1893, 5,549,296 tons; in 1892, 7,891,630 tons; in 1891, 6,591,542 tons. The largest production was in 1895, and the smallest in 1893. While Westmoreland produced the greatest number of tons of coal, Fayette is far in the lead in the production of coke, having produced last year 5,339,887 tons as against 2,956,908 tons in Westmoreland. There has not been a great increase in the production in Westmoreland since 1891, when it was 2,185,096 tons, but in Fayette the increase is marked, as in 1891 it was 3,091,301 tons. The figures show that 60 per cent. of the coke in Pennsylvania is produced in Fayette county.

The report of each inspector is published and transmitted herewith. There have been excluded from the reports the following maps and plans: Map of Rolling Mill Coal Mine, Sixth Bituminous District; plans of Air Compressor and Air Compressor Buildings, Fifth Bituminous District; Profile Plan, showing changes of drift and a trestle for electric haulage at Atlantic Mine No. 1, Eighth Bituminous District; plans of Engine House and Tipple, Coalbrook Coal Works, Ninth Bituminous District.

It has been found practically impossible to publish all the maps and plans submitted by the inspectors, as to do so would make the report too bulky, or necessitate the publication of a supplemental volume.

Comparison of Mining and Railway Accidents.

The following comparisons of accidents occurring among the miners of the State and the employes of the railways will be of interest. As before ascertained, there was in the anthracite region, in 1895, 1 miner killed to 342 employed; in the bituminous region, 1 to 544. The statistics of fatal accidents among railway employes in the United States show that during the year ending June 30, 1895, there was 1 employe killed to 432 in the service. These figures show that there was greater freedom from fatal accidents in the bituminous coal mines than in the railway service, but the reverse is true with reference to the anthracite mines. When comparisons are made of the non-fatal accidents, it is seen that in proportion to the number of persons employed the number of accidents on the railways is greater than in the mines. For instance, in 1895 in the anthracite region there was 1 injured to 133 employed, and in the bituminous region 1 to 202; while on the railways there was 1 to 23.

Production of coal and coke in tons.

Districts.	Coal.					Coke.				
	1895.	1894.	1893.	1892.	1891.	1895.	1894.	1893.	1892.	1891.
Anthracite.										
First,	6,510,817	5,907 331	**6,202 131.34	**5,854,638.30	†0,981,356	.....	.....	.....	.....	.....
Second,	*6,189,495.18	5,674,539.09	**5,936,475.10	**6.013.537.19	.....	.....	.....	.....	.....	.....
Third,	6,214,834	5,541,952	**5,629,914.85	*5,659,730.09	*6,125,094.15	.....	.....	.....	.....	.....
Fourth,	8,066,539	7,162,961.05	**8,065,768.95	*7,549,605.02	**6,639,697.65	.....	.....	.....	.....	.....
Fifth,	6,590,966	6,132,627	*6,239,058.50	*5,842,724.19	*5,803,964.07	.....	.....	.....	.....	.....
Sixth,	7,164,898	6,340,631	6,674,807	*6,287,366.06	*6,492,949.16	.....	.....	.....	.....	.....
Seventh,	6,184,542	5,404,823	**5,288,892.88	*5,584,678.17	*5,302,050.08	.....	.....	.....	.....	.....
Eighth,	3,925,013	3,341,315	**3,142,504.63	‖3,066,092	‖3,031,067	.....	.....	.....	.....	.....
Total,	50,847,104.18	45,506,179.14	47,179,563.25	45,738,373.90	44,376,179.95	.....	.....	.....	.....	.....
Bituminous.										
First,	5,539,951	5,282,181	4,876,307	4,299,437	3,948,665	.....	.....	.....	.....	1,000
Second,	9,128,787½	6,424,633	6,635,908.25	**8,033,246.50	6,753,614	2,569,085	1,635,243	**1,511,871.15	2,306,788.87	1,760,264
Third,	3,254,947	2,641,120	3,224,130	**3,207,814.25	**3,422,550.50	.....	3,488	27,039	66,458	147,897.50
Fourth,	5,294,351	4,296,596	4,850,122	**3,606,142.36	**3,834,245.25	306,198	242,810	289,844	70,473	108,028.06
Fifth,	6,423,802	3,908,348	3,629,559	7,360,101	5,423,801	3,756,487	2,264,971	2,092,993	4,280,570	3,117,958
Sixth.	4,406,750	2,981,088	3,140,284	7,360,158	6,950,036	133,992	41,662	109,348	1,033,866	1,330,374
Seventh,	4,603,508	2,438,875	4,435,416	5,897,942	4,843,174	5,000	6,000	3,000	12,000	10,392
Eighth,	4,709,932	3,454,078	5.043,478	6,811,735	6,611,559	24,140	13,302	50,857	128,475	115,629
Ninth,	5,652,813	4,690,811	4,814,178	.....	.....	1,985,206	1,473,982	**1,240.163.75	.....	.....
Tenth.	2,708,271	1,882,530	2,772,116	.....	.....	42,221	147,786	224,181	.....	.....
Total,	51,813,112½	39,800,210	43,421,898.25	46,576,576.11	41,787,644.75	8,922,329	5,729,244	5,549,296.90	7,891,630.87	6,591,542.56
Grand total,	.....	85,306,389.14	90,601,461.50	92,314,950.01	86,163,824.70	.....	5,729,244	5,549,296.90	7,891,630.87	6,591,542.56

* Decimals indicate twentieths of a ton. ** Decimals indicate hundredths of a ton. ‖ Production of this district was obtained by adding six per cent. to the total shipments. † First and Second Anthracite Districts reported together for 1891.

Number of employes in and about the mines. *Number of fatal and non-fatal accidents.*

Districts.	Number of Employes.					Fatal Accidents.					Non-fatal Accidents.				
	1895.	1894.	1893.	1892.	1891.	1895.	1894.	1893.	1892.	1891.	1895.	1894.	1893.	1892.	1891.
Anthracite.															
First,	16,272	16,014	15,637	14,121	†23,974	39	47	57	55	69	121	98	96	115	215
Second,	16,269	15,627	14,429	14,111	.....	34	41	35	33	.....	192	141	173	181	.....
Third,	17,413	16,965	15,779	15,020	17,354	68	51	64	50	60	167	148	178	163	189
Fourth,	24,669	22,764	22,790	21,206	19,411	74	71	47	83	96	221	229	221	180	168
Fifth,	18,467	18,361	17,540	16,277	14,961	52	58	58	48	53	102	95	99	110	115
Sixth,	19,810	20,109	21,872	20,608	19,270	59	73	60	54	65	52	94	139	120	93
Seventh,	19,399	19,121	19,197	18,437	18,325	59	78	77	45	56	114	76	119	101	155
Eighth,	11,306	10,734	10,777	10,417	9,740	35	20	27	28	28	106	40	44	53	68
Total,	143,605	139,695	138,021	130,197	123,055	420	439	445	396	427	1,075	919	1,069	1,023	1,003
Bituminous.															
First,	11,086	11,175	10,114	9,393	8,188	25	25	25	24	20	66	101	77	87	51
Second,	11,995	12,148	10,993	12,004	11,583	32	18	14	25	134	55	39	28	41	38
Third,	6,211	6,734	6,112	6,297	6,118	7	9	3	2	8	23	12	25	26	34
Fourth,	8,578	9,036	8,293	6,597	6,767	14	11	5	9	6	32	20	22	14	16
Fifth,	8,389	7,619	6,663	10,361	10,275	13	13	12	23	25	70	47	44	71	42
Sixth,	7,081	6,944	6,353	12,241	11,560	8	13	12	14	13	19	17	15	21	20
Seventh,	9,838	9,844	9,398	10,619	9,210	18	9	21	25	17	55	47	44	56	49
Eighth,	8,071	8,160	9,423	11,277	10,222	13	13	20	11	14	34	17	31	77	64
Ninth,	8,557	9,279	8,754	.....	.....	20	11	15	.....	.....	40	40	35	.....	.....
Tenth,	5,098	5,247	5,697	.....	.....	5	2	4	.....	.....	25	17	25	.....	.....
Total,	84,904	86,177	81,800	78,789	73,923	155	124	131	133	237	419	357	346	393	314
Grand total,	.....	225,872	219,821	208,986	196,958	.....	563	586	529	664	.....	1,276	1,415	1,416	1,317

† First and Second Anthracite Districts reported together for 1891.

Table showing production of anthracite coal and number of employes in and about the mines by counties.

Counties.	Tons of Coal.					Number of Employes.				
	1895.	1894.	1893.	1892.	1891.	1895.	1894.	1893.	1892.	1891.
Carbon,	1,577,146	1,589,395	1,510,289.50	1,427,542.55	1,191,158.50	4,382	5,391	4,410	3,848	3,312
Columbia,	493,042	510,537	741,990.74	889,489.85	761,559.15	1,756	2,011	2,654	2,424	2,787
Dauphin,	712,856	699,607	640,723.17	639,879	633,568.70	1,985	2,092	2,094	2,104	2,125
Lackawanna,	11,859,382	11,170,382.00	11,667,550.25	11,410,553.95	10,184,347.70	30,367	30,629	29,021	27,233	24,490
Luzerne,	19,143,101	17,243,928.05	18,253,144.75	17,548,508	17,726,559.65	55,798	52,994	51,392	47,944	46,825
Northumberland,	4,573,144	3,893,660	3,731,404.63	3,724,233.70	3,672,828.25	14,522	13,870	13,487	12,835	12,437
Schuylkill,	11,495,388	9,985,092	9,992,085.97	9,564,534.60	9,957,111.10	32,292	31,696	33,611	32,099	29,986
Sullivan,	152,141	.....	70,418	76,009.65	74,884.35	312	.....	307	261	229
Susquehanna,	840,904	413,578	571,956.19	457,622.30	369,712.45	2,491	1,012	1,045	999	823
Wayne,	.....	.....	.....	.....	3,450.10	.....	.....	.....	.....	18
Total,	50,847,104	45,506,179.14	47,179,563.25	45,738,373.90	44,376,179.95	143,605	139,695	138,021	129,797	123,035

Table showing production of bituminous coal and coke, and number of employes in and about the mines by counties.

Counties.	Tons of Coal.				
	1895.	1894.	1893.	1892.	1891.
Allegheny,	7,146,699	6,415,611	6,894,510.25	7,227,370.15	6,216,428
Armstrong,	649,174	577,928	300,222	349,561.75	299,945
Beaver,	267,863	135,752	151,346	188,379	139,114
Bedford,	430,804	288,753	490,416	565,760	413,537
Blair,	351,299	269,241	170,144	278,495	218,965
Bradford,	57,711	25,474	42,739	53,517	68,697
Butler,	220,895	134,334	160,443	132,040.50	160,273
Cambria,	4,461,629	3,005,261	3,377,459	3,289,194	3,073,078
Cameron,	.....	.....	.....	.....	.....
Centre,	303,513	174,548	1,259,351	372,431.61	490,300
Clarion,	428,675	401,088	772,622	788,873.25	739,068
Clearfield,	5,442,299	4,156,310	6,081,324	6,631,013.18	6,706,015.80
Clinton,	94,692	100,000	94,582	92,242	131,619
Elk,	602,428	515,070	617,878	756,852.19	739,058
Fayette,	10,124,541	6,684,153	6,105,845	7,791,360	5,758,200
Greene,	.....	.....	.....	.....	.....
Huntingdon,	289,092	187,070	291,739	350,005	277,938
Indiana,	483,795	406,878	359,170	638,667	539,628
Jefferson,	4,528,774	3,467,481	3,072,297	3,682,774.38	3,600,062.45
Lawrence,	227,699	135,411	197,277	119,539	172,197.50
Lycoming,	83,830	80,160	53,192	17,000	.....
McKean,	38,207	19,844	19,463	21,058	15,737
Mercer,	502,945	297,662	486,049	442,632.75	579,770
Potter,	.....	.....	.....	.....	.....
Somerset,	521,995	434,188	483,770	423,179	441,070
*Sullivan,	.....	90,538	.....	.....	.....
Tioga,	781,814	684,627	942,252	964,756	993,259
Washington,	3,460,694	3,373,778	3,414,444	2,726,941	2,407,837
Westmoreland,	10,325,245	7,739,080	7,583,346	8,696,964.35	7,605,867.95
Total,	51,813,112	39,800,210	43,421,898.25	46,576,576.11	41,787,644.75

*Now in Anthracite region.

Table showing production of bituminous coal and coke, and number of employes in and about the mines by counties—Continued.

Counties.	Tons of Coke.					Number of Employes.				
	1895.	1894.	1893.	1892.	1891.	1895.	1894.	1893.	1892.	1891.
Allegheny,	5,000	6,000	3,000	12,000	10,392	15,022	15,345	14,351	13,447	12,305
Armstrong,	.....	.....	6,556	.....	11,314.50	1,139	1,204	632	740	573
Beaver,	.....	80	100	.....	56	592	455	293	467	264
Bedford,	40,420	6,016	3,000	25,876	1,759	863	845	967	951	842
Blair,	28,700	8,200	39,361	101,117	79,252	788	707	536	635	624
Bradford,	.....	.....	.....	.....	.....	109	90	83	122	169
Butler,	.....	.....	.....	.....	.....	489	461	328	356	292
Cambria,	142,047	47,747	122,219	217,838	333,899	7,219	7,048	6,691	5,672	5,229
Cameron,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Centre,	.....	13,069	83,203	27,600	62,976 06	632	647	2,416	729	858
Clarion,	.....	.....	.....	.....	.....	842	1,021	1,626	1,488	1,346
Clearfield,	117,830	45,574	131,360	105,568	197,793	9,416	9,733	10,933	10,629	10,188
Clinton,	.....	.....	.....	.....	.....	198	151	180	173	200
Elk,	.....	8,257	29,421	17,181	2,500	1,093	1,297	1,332	1,243	1,365
Fayette,	5,339,887	3,426,791	3,011,054	4,268,825	3,091,301	13,387	12,566	11,185	11,621	11,076
Greene,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Huntingdon,	.....	.....	29,103	4,604	.....	630	689	630	668	597
Indiana,	7,172	5,250	33,620	40,234	105,623	707	760	873	1,021	822
Jefferson,	276,578	219,655	255,473	394,494	439,942	6,166	6,342	4,234	5,974	5,623
Lawrence,	.....	.....	.....	.....	.....	503	494	460	267	368
Lycoming,	.....	.....	.....	.....	.....	164	166	118	60	.....
McKean,	.....	.....	.....	.....	.....	86	42	39	44	31
Mercer,	.....	.....	.....	.....	.....	1,118	1,137	1,010	1,112	1,098
Potter,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Somerset,	6,862	5,027	9,953	11,745	26,657	618	865	677	554	576
*Sullivan,	.....	.....	.....	.....	.....	.....	337	.....	.....	.....
Tioga,	976	450	984	1,093	1,982	2,085	2,207	2,230	2,121	1,969
Washington,	.....	.....	.....	.....	1,000	6,835	6,998	7,110	5,502	4,550
Westmoreland,	2,956,908	1,937,128	1,700,889.90	2,626,454.87	2,185,096	14,203	14,570	13,016	13,083	12,958
Total,	8,922,329	5,729,244	5,549,296.90	7,891,630.87	6,591,542.50	84,904	86,177	81,800	78,789	73,923

*Now in anthracite region.

Number of fatal accidents and their causes, that occurred in and about the mines during the year 1895.

Districts.	From falls of coal.	From falls of roof, rock, slate, etc.	From premature explosions of blasts.	From explosions of powder, dynamite, etc.	From explosions of gas.	From falling down shafts, slopes, etc.	From being run over by cars, etc.	From being kicked by mules.	From miscellaneous causes.	Total.
Anthracite.										
First,	2	20	5	....	.....	.....	7	1	4	39
Second	5	18	4	1	.....	1	5	.....	.....	34
Third,	30	.....	.....	6	4	3	12	.....	14	69
Fourth,	33	.....	.....	3	10	2	13	.....	11	74
Fifth,	12	2	3	4	2	.....	13	.....	6	52
Sixth,	24	.....	4	4	10	4	4	.....	9	59
Seventh,	23	.....	9	.....	3	2	14	.....	8	59
Eighth,	12	1	3	1	3	3	5	.....	4	35
Total,	151	41	28	24	32	15	73	1	56	421
Bituminous.										
First,	3	17	1	.....	.....	.....	3	.....	1	25
Second,	1	19	.....	.....	.....	.....	7	1	4	32
Third,	1	3	1	1	.....	.....	1	.....	.....	7
Fourth,	2	8	.....	.....	1	.....	3	.....	.....	14
Fifth,	.....	4	.....	.....	.....	1	5	.....	3	13
Sixth,	3	2	.....	.....	1	.....	2	.....	.....	8
Seventh,	.....	12	.....	1	2	.....	3	.....	1	18
Eighth,	2	8	.....	.....	.....	.....	2	.....	1	13
Ninth,	2	11	1	.....	1	.....	3	.....	2	20
Tenth,	2	2	.....	.....	.....	.....	1	.....	.....	5
Total,	16	87	3	2	5	1	30	1	12	155
Grand total,	167	128	31	26	37	16	103	2	68	576

Number of non fatal accidents and their causes, that occurred in and about the mines during the year 1895.

Districts.	From falls of coal.	From falls of roof, rock, slate, etc.	From premature explosions of blasts.	From explosions of powder, dynamite, etc.	From explosions of gas.	From falling down shafts, slopes, etc.	From being run over by cars, etc.	From being kicked by mules.	From miscellaneous causes.	Total.
Anthracite.										
First,	10	44	12	7	9	.....	20	4	15	121
Second,	21	63	15	43	8	2	44	9	17	192
Third,	41	.....	.....	23	34	.....	44	.....	25	167
Fourth,	65	.....	.....	21	45	.....	38	.....	52	221
Fifth,	39	.....	6	1	9	.....	27	.....	20	102
Sixth,	26	.....	10	1	15	.....	22	.....	11	85
Seventh,	40	.....	.....	10	16	1	36	2	9	114
Eighth,	22	.....	4	4	30	3	21	1	21	106
Total,	264	107	47	80	166	6	252	16	170	1,108
Bituminous.										
First,	15	27	.....	1	5	.....	10	.....	8	66
Second,	11	21	.....	.....	2	.....	17	2	2	55
Third,	9	5	4	.....	.....	.....	5	.....	.....	23
Fourth,	8	12	.....	1	2	.....	9	.....	.....	32
Fifth,	10	21	.....	*4	.....	.....	24	3	8	70
Sixth,	5	3	.....	1	3	.....	7	.....	.....	19
Seventh,	10	21	.....	.....	5	.....	18	.....	1	55
Eighth,	8	16	.....	1	.....	.....	7	.....	2	34
Ninth,	2	19	1	.....	1	.....	12	.....	5	40
Tenth,	7	12	.....	.....	.....	.....	5	.....	1	25
Total,	85	157	5	8	18	.....	114	5	27	419
Grand total,	349	264	52	88	184	6	366	21	197	1,527

* Boiler explosion.

COAL PRODUCTION OF THE WORLD.

The following statistics have been compiled by Messrs. Alder and Ruley who publish a yearly book on matters pertaining to the production of coal, which show approximately the total coal product of the different countries of the world at the present time, in tons of 2,000 pounds, the latest reports obtainable being used in the table, and the year noted in each case.

Year.	*Country.*	*Product.*
1894.	Great Britain,	210,870,828
1895.	United States,	193,990,933
1894.	Germany,	104,036,514
1894.	France,	30,144,628
1895.	Belgium,	22,497,163
1895.	Austria-Hungary,	29,136,880
1894.	Russia,	8,271,710
1894.	Spain,	1,700,000
1894.	Italy,	298,966
1894.	Sweden,	425,750
1893.	Canada,	3,934,004
1893.	Japan,	3,400,000
1893.	Australia,	2,640,000
1893.	Other countries,	8,000,000

LAW RELATING TO ANTHRACITE COAL MINES.

AN ACT

To provide for the health and safety of persons employed in and about the anthracite coal mines of Pennsylvania and for the protection and preservation of property connected therewith.

ARTICLE I.

Section 1. Be it enacted, &c., That this act shall apply to every anthracite coal mine or colliery in the Commonwealth, provided the said mine or colliery employes more than ten (10) persons.

ARTICLE II.

Inspectors and Inspection Districts.

Section 1. The counties of Susquehanna, Wayne, Luzerne, Lackawanna, Carbon, Schuylkill, Northumberland, Columbia, Lebanon and Dauphin, or so much of them as may be included under the provisions of this act, shall be divided into eight (8) inspection districts as follows:

Section 2. *First.* All that portion of the Lackawanna coal field lying northeast of East and West Market streets in the city of Scranton, and of Slocum and Drinker streets in the borough of Dunmore, including the coal fields of Susquehanna and Wayne counties.

Second. That portion of the Lackawanna coal field in Lackawanna county lying southwest of East and West Market streets in the city of Scranton, and west of Slocum and Drinker streets in the borough of Dunmore.

Third. That portion of the Wyoming coal field situated in Luzerne county, east of and including Plains and Kingston townships.

Fourth. The remaining portion of the Wyoming coal field west of Plains and Kingston townships, including the city of Wilkes-Barre and the boroughs of Kingston and Edwardsville.

Fifth. That part of Luzerne county lying south of the Wyoming coal field together with Carbon county.

Sixth. That part of the Schuylkill coal field in Schuylkill county lying north of the Broad Mountain and east of a meridian line through the center of the borough of Girardville.

Seventh. That part of the Schuylkill coal field in Schuylkill county lying north of the Broad Mountain and west of a meridian line through the center of the borough of Girardville, together with Columbia, Northumberland and Dauphin counties.

Eighth. All that part of the Schuylkill coal field in Schuylkill county lying south of the Mahanoy Valley, and the county of Lebanon.

Section 3. In order to fill any vacancy that may occur in the office of Inspector Mines by reason of expiration of term, resignation, removal for cause or from any other reason whatever, the judges of the court of Lackawanna county shall appoint an examining board for the counties of Susquehanna, Wayne and Lackawanna, and the judges of the court of Luzerne county shall appoint an examining board for the counties of Sullivan, Carbon and Luzerne, and the judges of Schuylkill county shall appoint an examining board for the counties of Schuylkill, Northumberland, Lebanon, Columbia and Dauphin.

Section 4. The said Board of Examiners shall be composed of three reputable coal miners in actual practice and two reputable mining engineers, all of whom shall be appointed at the first term of court in each year, to hold their places during the year. Any vacancies that may occur in the Board of Examiners shall be filled by the court as they occur. The said Board of Examiners shall be permitted to engage the services of a clerk, and they, together with the clerk, shall each receive the sum of five dollars per day for every day they are actually engaged in the discharge of their duties under this appointment, and mileage at the rate of six cents per mile from their home to the place of meeting and return by the nearest practicable railway route.

Section 5. Whenever candidates for the office of Inspector are to be examined, the said examiner shall give public notice of the fact in not more than five papers published in the inspection district, and at least two weeks before the meeting, specifying the time and place where such meeting shall be held. The said examiners shall be sworn to a faithful discharge of their duties, and four of them shall agree in their recommendation of all candidates to the Governor who have answered ninety per centum of the questions; the names of the applicants, the questions asked and answered thereto shall be sent to the Secretary of the Commonwealth, and published in at least two local papers, daily or weekly, and shall recommend only such applicants as they find qualified for the office.

Should the Board of Examiners not be able to agree in their selection and recommendation of a candidate, the judges of the court of common pleas shall dissolve the said board and appoint a new board of like qualifications and powers.

Upon the recommendation of the Board of Examiners as aforesaid, the Governor shall appoint such person or persons to fill the office of Inspector of mines under this act, and shall issue to him a com-

mission for the term of five years, subject, however, to removal for neglect of duty or malfeasance in office as hereinafter provided for.

Section 6. The person so appointed must be a citizen of Pennsylvania and shall have attained the age of thirty years. He must have a knowledge of the different systems of working coal mines, and he must produce satisfactory evidence to the Board of Examiners of having had at least five (5) years' practical experience in anthracite coal mines of Pennsylvania. He must have had experience in coal mines where noxious and explosive gases are evolved.

Before entering upon the duties of his office he shall take an oath or affirmation before an officer properly qualified to administer the same, that he will perform his duties with fidelity and impartiality, which oath or affirmation shall be filed in the office of the prothonotary of the county. He shall also provide himself with the most modern instruments and appliances for carrying out the intentions of this act.

Section 7. The salary of each of the said Inspectors shall be three thousand dollars per annum, which salary, together with the expense incurred in carrying into effect the provisions of this act, shall be paid by the State Treasurer out of the treasury of the Commonwealth upon the warrant of the Auditor General.

Section 8. In case the Inspector becomes incapacitated to perform the duties of his office for a longer period than two weeks, it shall be the duty of the judges of the court of common pleas to deputize some competent person recommended by the Board of Examiners to fill the office of Inspector until the said Inspector shall be able to fulfill the duties of his office and the person so appointed shall be paid in the same manner as is provided for the Inspector of Mines.

Section 9. Each of the said Inspectors shall reside in the district for which he is appointed, and shall give his whole time and attention to the duties of the office. He shall examine all the collieries in his district as often as his duties will permit or as often as the exigencies of the case or the condition of the mines require it; see that every necessary precaution is taken to secure the safety of the workmen and that the provisions of this act are observed and obeyed; attend every inquest held by the coroner, or his deputy, upon the bodies of persons killed in or about the collieries in his district; visit the scene of the accident for the purpose of making an examination into the particulars of the same whenever loss of life or serious personal injury occurs as elsewhere herein provided for, and make an annual report of his proceedings to the Secretary of Internal Affairs of the Commonwealth at the close of every year, enumerating all the accidents in and about the collieries of his district, marking in tabular form those accidents causing death or serious personal injury;

the condition of the workings of the said mines with regard to the safety of the workmen therein and the ventilation thereof, and the result of his labors generally shall be fully set forth.

Section 10. The Board of Examiners, each for its respective district as hereinbefore provided for, in order to divide more equitably among the several mine Inspectors the labor to be performed and the territory to be covered by them in the performance of the duties of the office, may, at any time when they shall deem it desirable or necessary, readjust the several districts by the creation of new boundary lines, thereby adding to or taking from, as the case may be, the districts as at present bounded and described, if the court having jurisdiction approve the same.

And in case it shall be deemed desirable or necessary to readjust any contiguous district, comprised by more than one judicial district, by the creation of new boundary lines, then in such case the examining boards of the territory affected or requiring such adjustment, shall, in joint session, make such change or readjustment as they shall jointly agree upon, if the nearest court having jurisdiction to the territory affected to whom the said joint examining boards shall submit the matter, shall approve the same.

Section 11. The mine Inspector shall have the right, and it is hereby made his duty, to enter, inspect and examine any mine or colliery in his district and the workings and machinery belonging thereto, at all reasonable times, either by day or night, but not so as to impede or obstruct the working of the colliery, and shall have power to take one or more of his fellow Inspectors into or around any mine or colliery in the district for which he is appointed, for the purpose of consultation or examination.

He shall also have the right, and it is hereby made his duty, to make inquiry into the condition of such mine or colliery workings, machinery, ventilation, drainage, method of lighting or using lights and into all matters and things connected with or relating to, as well as to make suggestions providing for the health and safety of persons employed in or about the same, and especially to make inquiry whether the provisions of this act have been complied with.

The owner, operator or superintendent of such mine or colliery is hereby required to furnish the means necessary for such entry, inspection, examination, inquiry and exit.

The Inspector shall make a record of the visit, noting the time and material circumstances of the inspection.

Section 12. No person who shall act or practice as a land agent or as the manager or agent of any coal mine or colliery, who is pecuniarily interested in operating any coal mine or colliery in his district, shall, at the same time, hold the office of Inspector of Mines under this act.

Section 13. Whenever a petition signed by fifteen or more reputable coal operators or miners, or both, setting forth that any Inspector of mines neglects his duties, or is incompetent, or is guilty of malfeasance in office, it shall be the duty of the court of common pleas of the proper county to issue a citation in the name of the Commonwealth to the said Inspector to appear at not less than five days' notice, on a day fixed, before said court and the court shall then proceed to inquire into and investigate the allegations of the petitioners. If the court find that said Inspector is neglectful of his duties or that he is incompetent to perform the duties of the office, for any cause that existed previous to his appointment or that has arisen since his appointment, or that he is guilty of malfeasance in office, the court shall certify the same to the Governor of the Commonwealth, who shall declare the office of Inspector for the district vacant and proceed, in compliance with the provisions of this act, to appoint a proporely qualified person to fill the office.

The cost of said investigation shall be borne by the removed Inspector; but if the allegations in the petition are not sustained the costs shall be paid by the petitioners.

Section 14. The maps and plans of the mines and the records thereof, together with all the papers relating thereto, shall be kept by the Inspector, properly arranged and preserved, in a convenient place in the district for which each Inspector has been appointed. and shall be transferred by him with any other property of the Commonwealth that may be in his possession, to his successor in office.

Section 15. The persons who, at the time this act goes into effect, are acting as Inspectors of mines under the acts hereby repealed shall continue to act in the same manner as if they had been appointed under this act, and until the term for which they were appointed has expired.

Article III.

Surveys, Maps and Plans.

Section 1. The owner, operator or superintendent of every coal mine or colliery shall make, or cause to be made, an accurate map or plan of the workings or excavations of such coal mine or colliery, on a scale of one hundred feet to the inch, which map or plan shall exhibit the workings or excavations in each and every seam of coal and the tunnels and passages connecting with such workings or excavations. It shall state in degrees the general inclination of the strata with any material deflection therein in said workings or excavations, and shall also state the tidal elevations of the bottom of each and every shaft, slope, tunnel and gang-way, and of any other point in the mine or on the surface where such elevation shall be

deemed necessary by the Inspector. The map or plan shall show the number of the last survey station and date of each survey on the gangways or the most advanced workings. It shall also accurately show the boundary lines of the lands of the said coal mine or colliery and the proximity of the workings thereto, and in case any mine contains any water dammed up in any part thereof, it shall be the duty of the owner, operator or superintendent to cause the true location of the said dam to be accurately marked on said map or plan, together with the tidal elevation, inclination of strata and area of said workings containing water, and whenever any workings or excavations is approaching the workings where such dam or water is contained or situated, the owner, operator or superintendent shall notify the Inspector of the same without delay.

A true copy of which map or plan the said owner, operator or superintendent shall deposit with the Inspector of mines for the district in which the said coal mine or colliery is situated, showing the workings of each seam, if so desired by the Inspector, on a separate sheet of tracing muslin. One copy of the said map or plan shall be kept at the colliery.

Section 2. The said owner, operator or superintendent shall, as often as once in every six months place, or cause to be placed, on the said Inspector's map or plan of said coal mine or colliery, the plan of the extensions made in such coal mine or colliery during the preceding six months. The said extensions shall be placed on the Inspector's map and the map returned to the Inspector within two months from the date of the last survey.

Section 3. When any coal mine or colliery is worked out preparatory to being abandoned, or when any lift thereof is about to be abandoned, the owner, operator or superintendent of such coal mine or colliery shall have the maps or plans thereof extended to include all excavations, as far as practicable, and such portions thereof as have been worked to the boundary lines of adjoining properties; or any part or parts of the workings of which is intended to be allowed to fill with water, must be surveyed in duplicate and such surveys must practically agree, and certified copies be filed with the Inspector of the district in which the mines are situated.

Section 4. Whenever the owner, operator or superintendent of any coal mine or colliery shall neglect or refuse, or from any cause not satisfactory to the Inspector, shall fail, for a period of three months, to furnish to the Inspector the map or plan of said colliery or of the extensions thereto, as provided for in this act, the Inspector is hereby authorized to cause an accurate map or plan of such coal mine or colliery to be made at the expense of the owner thereof, which cost shall be recoverable from said owner as other debts are by law recoverable.

Section 5. If the Inspector finds or has reason to believe that any map or plan of any coal mine or colliery, furnished under the provisions of this act, is materially inaccurate, it shall be his duty to make application to the court of common pleas of the county in which such colliery is situate for an order to have an accurate map or plan of said colliery prepared, and if such survey shall prove that the map furnished was materially inaccurate or imperfect, such owner, operator or superintendent shall be liable for the expense incurred in making the same.

Section 6. If it shall be found that the map or plan furnished by the owner, operator or superintendent was not materially inaccurate or imperfect, the Commonwealth shall be held liable for the expense incurred in making said test survey.

Section 7. If it shall be shown that the said owner, operator or superintendent has knowingly or designedly caused or allowed such map or plan, when furnished, to be incorrect or false, such owner, operator or superintendent thus offending, shall be guity of a misdemeanor and upon conviction thereof, shall be punished by a fine not exceeding five hundred dollars or imprisonment not exceeding three months, at the discretion of the court.

Section 8. The maps or plans of the several coal mines or collieries in each district and which are placed in the custody of the Inspector, shall be the property of the Commonwealth, and shall remain in the care of the Inspector of the district in which the said collieries are situated to be transferred by him to his successor in office; and in no case shall a copy of the same be made without the consent of the owner, operator or superintendent.

Section 9. The Inspector's map or plan of any particular colliery shall be open for inspection, in the presence of the Inspector, to any miner or miners of that colliery, whenever said miner or miners shall have cause to fear that his or their working place or places is becoming dangerous, by reason of its proximity to other workings which may be supposed to contain water or dangerous gases. Said map shall also be open to the inspection and examination of any citizen interested, during business hours.

Section 10. It shall be obligatory on the owners of adjoining coal properties to leave, or cause to be left, a pillar of coal in each seam or vein of coal worked by them, along the line of adjoining property, of such width, that taken in conection with the pillar to be left by the adjoining property owner, will be a sufficient barrier for the safety of the employes of either mine in case the other should be abandoned and allowed to fill with water; such width of pillar to be determined by the engineers of the adjoining property owners together with the Inspector of the district in which the mine is

situated, and the surveys of the face of the workings along such pillar shall be made in duplicate and must practically agree. A copy of such duplicate surveys, certified to, must be filed with the owners of the adjoining properties and with the Inspector of the district in which the mine or property is situated.

Article IV.

Shafts, Slopes, Openings and Outlets.

Section 1. It shall not be lawful for the owner, operator or superintendent of any mine to employ any person or persons in such mine or permit any person or persons to be in such mine for the purpose of working therein unless they are in connection with every seam or stratum of coal; and from every lift thereof, worked in such mine, not less than two openings or outlets, separated by a strata of not less than sixty (60) feet in breadth underground and one hundred and fifty (150) feet in breadth at the surface, at which openings or outlets, safe and distinct means of ingress and egress, are at all times available for the person or persons employed in the said mine, but it shall not be necessary for the said two openings to belong to the same mine if the persons employed therein have safe, ready and available means of ingress and egress by not less than two openings. This section shall not apply to opening a new mine or to opening any new lift of a mine while being worked for the purpose of making communication between said two outlets, so long as not more than twenty persons are employed at any one time in such mine or new lift of a mine, neither shall it apply to any mine or part of a mine in which the second outlet has been rendered unavailable by reason of the final robbing of pillars previous to abandonment, so long as not more than twenty persons are employed therein at any one time. The cage or cages, and other means of egress shall, at all times, be available for the persons employed where there is no second outlet.

Section 2. The owner, operator or superintendent of any mine to which there is only one shaft, slope or outlet, may petition the court of common pleas in and for the county in which such mine is situated, which said court is hereby empowered to act in the premises, setting forth that in consequence of intervening lands between the working of his mine and the most practicable point, or the only practicable point, as the case may be, at which to make or bring to the surface from the working of his mine, he is unable to make an additional shaft, slope or outlet in accordance with the requirements of this act, whereupon the court may make an order of reference and appoint three disinterested persons, residents of the county, viewers, one or more of whom shall be a practical mining engineer, all of whom, after being sworn to a faithful discharge of

their duties, shall view and examine the premises and determine as to whether the owner should have the privilege of making an additional outlet through or upon any intervening lands, as the case may require, and report in writing to the court, which report shall be entered and filed of record. If the finding of the viewers, or any two of them, is in favor of the owner of such coal mine or colliery, he may make an additional shaft, slope or outlet under, through or upon intervening lands, as may be determined upon and provided for by the award. If the finding of the viewers is against the owner, or if no award be made by reason of any default or neglect on the part of the owner, he shall be bound to comply with the provisions of this act in the same manner as if this section had not been enacted. In case the said owner, operator or superintendent desires to and claims that he ought to make an additional opening under, through or upon any adjoining or intervening lands, to meet the requirements of this act for the ingress and egress of the men employed in his or their mine, he or they shall make a statement of the facts in the petition, with a survey, setting forth the point of commencement and the point of termination of the proposed outlet which he or they, their engineers, agents or employes may enter upon said intervening lands and survey and mark, as he or they shall find it proper to adopt for such additional outlet, doing as little damage as possible to the property explored; and the viewers shall state in their report what damage will be sustained by the owner or owners of the intervening lands by the opening, constructing and using of the outlet, and if the report is not appealed from it shall be confirmed or rejected by said court as to right and justice shall appertain, and any further and all proceedings in relation thereto shall be in conformity with like proceedings as in the case of a lateral railroad across or under intervening lands, under the act in relation to lateral railroads, approved the fifth day of May, Anno Domini one thousand eight hunderd and thirty-two, and the supplements thereto, so far as the provisions of the same are applicable thereto; and the notices to the owner of intervening lands of the intention to apply for the privilege of making an outlet and meeting of the viewers shall be given, and the costs of the case shall be paid as provided in the said act of fifth day of May, Anno Domini one thousand eight hundred and thirty-two, and the supplements thereto.

Section 3. The escapements, shafts or slopes shall be fitted with safe and available appliances by which the persons employed in the mine may readily escape in case an accident occurs deranging the hoisting machinery at the main outlets.

Section 4. In slopes where the angle of inclination is fifteen degrees or less there must be provided a separate traveling way, which

shall be maintained in a safe condition for travel and kept free from steam and dangerous gases.

Section 5. No inflammable structure, other than a frame to sustain pulleys or sheaves, shall be erected over the entrance of any opening connecting the surface with the underground workings of any mine, and no "breaker" or other inflammable structure for the preparation or storage of coal shall be erected nearer than two hundred (200) feet to any such opening, but this act shall not be construed to prohibit the erection of a fan drift for the purpose of ventilation, or of a trestle for the transportation of cars from any slope to such breaker or structure, neither shall it apply to any shaft or slope until the work of development and shipment of coal has commenced: Provided, That this section shall not apply to breakers that are now erected.

Section 6. The top of each shaft and also of each slope, if dangerous, or any intermediate lift thereof, shall be securely fenced off by railing or by vertical or flat gates.

Section 7. Every abandoned slope, shaft, air-hole and drift shall be properly fenced around or across its entrance.

Section 8. All underground entrances to any places not in actual course of working or extension shall be properly fenced across the whole width of such entrances, so as to prevent persons from inadvertently entering the same.

Section 9. The owner, orepator or superintendent of any coal mine or colliery which is worked by shaft or slope, shall provide and maintain a suitable appliance by or through which conversation can be held by and between persons at the bottom and at the top of the shaft or slope, and also an efficient means of signaling from the bottom of such shaft or slope to the engineer in charge of the hoisting engine.

Section 10. Hand rails and efficient safety catches shall be attached to, and a sufficient cover overhead shall be provided on every cage used for lowering or hoisting persons in any shaft.

Section 11. Wherever practicable, every cage or gun-boat used for lowering or hoisting persons in any slope, shall be provided with a proper protector, so constructed that persons, while on such cage or gun-boat, shall not be struck by anything which may fall or roll down said slope.

Section 12. The main link of the chain connecting the rope to the cage, gun-boat or car in any shaft or slope, shall be made of the best quality of iron; bridle chains made of the same quality of iron shall be attached to the main link, rope or rope socket from the cross-head of the cage or gun-boat when persons are being lowered or hoisted thereon.

Section 13. The ropes, safety catches, links and chains shall be carefully examined every day they are used, by a competent person delegated for that purpose and any defects therein found, by which life or limb may be endangered, shall be immediately remedied.

Section 14. An efficient brake shall be attached to every drum that is used for lowering or raising persons or material in any mine.

Section 15. Flanges or horns of sufficient dimensions to prevent the rope from slipping off the said drum shall be provided and properly attached to the drum, and all machines used for lowering or hoisting persons in mines shall be provided with an indicator to show the position of the cage, car or gun-boat in the shaft or slope.

Section 16. Over all shafts which are being sunk, or shall hereafter be sunk, a safe and substantial structure shall be erected to sustain the sheaves or pulleys, at a height of not less than twenty (20) feet above the tipping-place, and the top of such shaft shall be arranged in such manner that no material can fall into the shaft while the bucket is being emptied.

Section 17. The said structure shall be erected as soon as a substantial foundation is obtained, and in no case shall a shaft be sunk to a depth of more than fifty (50) feet without such structure.

Section 18. If provision is made to land the bucket upon truck, the said truck shall be constructed in such manner that material cannot fall into the shaft.

Section 19. All rock and coal from shafts as they are being sunk, shall not be raised except in a bucket or on a cage, and such bucket or cage must be connected to the rope or chain by a safety hook, clevis or other safe attachment.

Section 20. Such shafts shall be provided with guides and guide attachments applied in such manner as to prevent the bucket from swinging while descending or ascending therein, and such guides and guide attachments shall be maintained at a distance of not more than seventy-five (75) feet from the bottom of such shaft, until its sinking shall have been completed, but this section shall not apply to shafts one hundred (100) feet or less in depth.

Section 21. Where the strata are not safe every shaft shall be securely cased, lined or otherwise made secure.

Section 22. The following rules shall be observed, as far as practicable, in every shaft to which this act applies:

First. After each and every blast the chargeman must see that all loose material is swept down from the timbers before the workmen descend to their work.

Second. After a suspension of work, and also after firing a blast in a shaft where explosive gasses are evolved, the person in charge must have the said shaft examined and tested with a safety lamp before the workmen are allowed to descend.

Third. Not more than four persons shall be lowered or hoisted in any shaft on a bucket at the same time, and no person shall ride on a loaded bucket.

Fourth. Whenever persons are employed on platforms in shafts the person in charge must see that the said platforms are properly and safely constructed.

Fifth. While shafts are being sunk all blasts therein must be exploded by an electric battery.

Sixth. Every person who fails to comply with or who violates the provisions of this article shall be guilty of an offense against this act.

Article V.

Boilers and Connections, Machinery, &c.

Section 1. All boilers used for generating steam in and about mines and collieries shall be kept in good order, and the owner, operator or superintendent shall have them examined and inspected by a qualified person as often as once in six months, and oftener if needed. The result of such examination, under oath, shall be certified in writing to the Inspector for the district within thirty (30) days thereafter.

Section 2. It shall not be lawful to place any boiler or boilers, for the purpose of generating steam, under nor nearer than one hundred (100) feet to any coal breaker or other structure in which persons are employed in the preparation of coal: Provided, That this section shall not apply to boilers or breakers already erected.

Section 3. Each nest of boilers shall be provided with a safety valve of sufficient area for the steam to escape and with weights or springs properly adjusted.

Section 4. Every boiler house shall be provided with a steam gauge properly connected with the boilers, to indicate the steam pressure, and another steam gauge shall be attached to the steam pipe in the engine house and placed in such position that the engineer or fireman can readily examine them and see what pressure is carried. Such steam gauges shall be kept in good order, tested and adjusted as often as once in every six months and their condition reported to the Inspector in the same manner as the report of boiler inspection.

Section 5. All machinery used in or about the mines and collieries and especially in breakers, such as engines, rollers, wheels, screens, shafting and belting shall be protected by covering or railing so as to prevent persons from inadvertently walking against or falling upon the same. The sides of stairs, trestles and dangerous plank walks in and around the collieries shall be provided with hand and guard railing to prevent persons from falling over their sides. This

section shall not forbid the temporary removal of a fence, guard rail or covering for the purpose of repairs or other operations, if proper precautions are used, and the fence, guard rail or covering is replaced immediately thereafter.

Section 6. A sober and competent person, not under eighteen (18) years of age, shall be engaged to run the breaker engine and he shall attend to said engine while the machinery is in motion.

Section 7. A signal apparatus shall be established at important points in every breaker so that in case of an accident the engineer can be promptly notified to stop the machinery.

Section 8. No person under fifteen (15) years of age shall be appointed to oil the machinery, and no person shall oil dangerous parts of such machinery while it is motion.

Section 9. No person shall play with, loiter around or interfere with any machinery in or about any mine or colliery.

Section 10. Failure to comply with the provisions of this article shall be deemed an offense against this act.

Article VI.

Wash Houses.

Section 1. It shall be the duty of the owner, operator or superintendent of each mine or colliery, at the request in writing of twenty or more men employed in any of the mines, to provide a suitable building, not an engine or boiler house, which shall be convenient to the principal entrance of such mine, for the use of the persons employed therein for the purpose of washing themselves and changing their clothes when entering the mine and returning therefrom. The said building shall be maintained in good order, be properly lighted and heated, and supplied with pure cold and warm water, and shall be provided with facilities for persons to wash. If any person or persons shall neglect or fail to comply with the provisions of this article, or maliciously injure or destroy, or cause to be injured or destroyed, the said building, or any part thereof, or any of the appliances or fittings used for supplying light, heat and water therein, or doing any act tending to the injury or destruction thereof, he or they shall be deemed guilty of an offense against this act.

Article VII.

Ambulances and Stretchers.

Section 1. The owner, operator or superintendent of every mine or colliery, except as hereinafter provided, shall provide and keep at such mine or colliery an ambulance and also at least two (2) stretchers, for the purpose of conveying to their places of abode, any

person or persons who may be injured while in the discharge of his or their work at such mine or colliery.

Section 2. The said ambulance shall be constructed upon good, substantial and easy springs. It shall be covered and closed and shall have windows on the sides or ends. It shall be of sufficient size to convey at least two (2) injured persons with two (2) attendants at one time, and shall be provided with spring mattresses or other comfortable bedding to be placed on roller frames, together with sufficient covering and protection and convenient movement of the injured. It shall also be provided with seats for the attendants. The stretchers shall be constructed of such material and in such manner as to afford the greatest ease and comfort in the carriage of the injured person.

Section 3. Whenever any person or persons employed in or about a mine or colliery shall receive such injury, by accident or otherwise, while so employed, as would render him or them unable to walk to his or their place of abode, the owner, operator or superintendent of such mine or colliery shall immediately cause such person or persons to be removed to his or their place of abode or to an hospital as the case may require.

Section 4. It is provided, however, that the owner, operator or superintendent of any mine or colliery shall be excepted from the requirement of an ambulance, as aforesaid, if the places of abode of all the workmen at such mine or colliery be within a radius of a half mile from the principal entrance to such mine.

Section 5. It is provided further, that where two or more mines or collieries are located within one mile of each other, or the ambulance is located within one mile of each colliery, but one ambulance, as aforesaid, shall be required, if the said mines or collieries have ready and quick means of communication, one with the other, by telegraph or telephone.

Section 6. An ambulance, as aforesaid, shall not be required at any mine or colliery at which less than twenty (20) persons are employed.

Section 7. In case the distance from any mine or colliery to the place of abode of the person injured, is such as to permit his conveyance to his home or to an hospital more quickly and conveniently by railway, such mode of conveyance shall be permitted, but in such case the conveyance must be under cover and the comfort of the injured person must be provided for.

Article VIII.

Certified Mine Foreman.

Section 1. It shall not be lawful, neither shall it be permitted, for any person or persons to act as mine foreman or assistant mine foreman of any coal mines or colliery, unless they are registered as a holder of a certificate of qualification or service under this act.

Section 2. Certificates of qualification to mine foreman and assistant mine foremen shall be granted by the Secretary of Internal Affairs to every applicant who may be reported by the examiners, as hereinafter provided, as having passed a satisfactory examination and as having given satisfactory evidence of at least five years' practical experience as a miner, and of good conduct, capability and sobriety.

The certificate shall be in manner and form as shall be prescribed by the Secretary of Internal Affairs, and a record of all certificates issued shall be kept in his department.

Section 3. For the purpose of examination of candidates for such certificates, a board of examiners shall be appointed in each of the inspection districts provided for by this act. The said board shall consist of the district Inspector of mines, two (2) practical miners and one owner, operator or superintendent of a mine. The said Inspector shall act ex-officio, and the said engineer and owner, operator or superintendent shall be appointed in like manner and at the same time as the boards of examiners for candidates for mine Inspectorship under this act are now appointed. The said board shall act as such for the period of one year from the date of their appointment Meetings of the board may be held at any time, and they may make such rules and conduct such examinations as in their judgment may seem proper for the purpose of such examinations. The said board shall report their action to the Secretary of Internal Affairs, and at least three (3) of the members thereof shall certify to the qualification of each candidate who has passed such examination. The traveling expenses of the members of such board to and from their place of meeting, together with the sum of five dollars per day each to the said two (2) practical miners and owner, operator or superintendent, members of each board, for each day they are actually engaged therein not exceeding ten (10) days in all, during the year, shall be paid by the Commonwealth on an order of the Auditor General drawn on the State Treasurer upon the certificate of the mine inspector, member of such board.

Section 4. Certificates of qualification to mine foreman and assistant mine foreman shall be granted by the Secretary of Internad Affairs to every applicant who may be reported by the examiners, as heretofore provided, as having passed a satisfactory examination

and as having given satisfactory evidence of at least (5) years' practical experience as a miner, and of good conduct, capability and sobriety. The certificate shall be in manner and form as shall be prescribed by the Secretary of Internal Affairs, and a record of all certificates issued shall be kept in the department. Certificates of qualification and certificate of service shall contain the full name, age and place of birth of the applicant, as also the length and nature of his previous service in or about the mines.

Section 5. Before certificate as aforesaid shall be granted applicants for same shall pay to the Secretary of Internal Affairs the following fee, namely:

For examination, one dollar; for registration of certificate, one dollar; for certificate, one dollar. All fees so received shall be covered into the treasury of the Commonwealth.

Section 6. No mines shall be operated for a longer period than thirty days without the supervision of a mine foreman. In case any mine is worked a longer period than thirty (30) days without such certified mine foreman, the owner, operator or superintendent thereof shall be subject to a penalty of twenty dollars per day for each day over the said thirty (30) days during which the said mine is operated.

Section 7. In case of the loss or destruction of a certificate the Secretary of Internal Affairs may supply a copy thereof to the person losing the same upon the payment of the sum of fifty (50) cents: Provided, It shall be shown to the satisfaction of the Secretary that the loss has actually occurred.

Section 8. If any person or person shall forge or counterfeit a certificate, or knowingly make or cause to be made any false statement in any certificate under this act, or in any official copy of same, or shall urge others to do so, or shall utter or use any such forged or false certificate or unofficial copy thereof, or shall make, give, utter, produce or make use of any false declaration, representation or statement in any such certificate or copy thereof, or any document containing the same, he or they shall guilty of a misdemeanor, and upon conviction thereof shall be fined two hundred dollars, or imprisoned for a term not exceeding one (1) year, or both, at the discretion of the court trying the case.

Section 9. And no person shall be permitted to act as fire boss in any coal mine or colliery, except he has had five (5) years' practical experience in mines as a miner, three (3) of which he shall have as a miner wherein noxious and explosive gases are evolved, and the said fire boss shall certify to the same before entering upon his duties, before an alderman, justice of the peace or other person authorized to administer oaths, and a copy of said deposition shall be filed with the District Inspector of mines wherein said person is employed.

Article IX.

Employment of Boys and Females.

Section 1. No boy under the age of fourteen (14) years, and no woman or girl of any age, shall be employed or permitted to be in any mine for the purpose of employment therein. Nor shall a boy under the age of twelve years or a woman or girl of any age, be employed or permitted to be in or about the outside structures or workings of a colliery for the purpose of employment, but it is provided, however, that this prohibition shall not affect the employment of a boy or female of suitable age in an office or in the performance of clerical work at a colliery.

Section 2. When an employer is in doubt as to the age of any boy or youth applying for employment in or about a mine or colliery, he shall demand and receive proof of the said lawful employment age of such boy or youth, by certificate from the parent or guardian, before said boy or youth shall be employed.

Section 3. If any person or persons contravene or fail to comply with the provisions of this act in respect to the employment of boys, young male persons or females, or if he or they shall connive with or permit others to contravene or fail to comply with said provisions, or if a parent or guardian of a boy or young male person make or give a false certificate of the age of such boy or young male person, or knowingly do or perform any other act for the purpose of securing employment for a boy or young male person under the lawful employment age and in contravention of the provisions of this act, he or they shall be guilty of an offense against this act.

Article X.

Ventilation.

Section 1. The owner, operator or superintendent of every mine shall provide and maintain a constant and adequate supply of pure air for the same, as hereinafter provided.

Section 2. It shall not be lawful to use a furnace for the purpose of ventilating any mine wherein explosive gases are generated.

Section 3. The minimum quantity of air thus produced, shall not be less than two hundred (200) cubic feet per minute for each and every person employed in any mine, and as much more as the circumstances may require.

Section 4. The ventilating currents shall be conducted and circulated to and along the face of each and every working place throughout the entire mine, in sufficient quantities to dilute, render harmless and sweep away smoke and noxious or dangerous gases, to such an extent that all working places and traveling roads shall be in a safe and fit state to work and travel therein.

Section 5. All worked out or abandoned parts of a mine in operation, so far as practicable, shall be kept free of dangerous bodies of gases or water, and if found impracticable to keep the entire mine free from an accumulation of gases or water, the mine Inspector must be immediately notified.

Section 6. Every mine employing more than seventy-five (75) persons must be divided into two or more districts. Each district shall be provided with a separate split of pure air and the ventilation shall be so arranged, that not more than seventy-five persons shall be employed at the same time in any one current or split of air.

The inlet and return air passages for any particular district must be separated by a pillar of coal or stone, if the thickness and dip of the vein will permit, except where it is necessary to cut through said dividing pillar for the purposes of ventilation, traffic or drainage.

Section 7. All air passages shall be of sufficient area to allow the free passage of not less than two hundred (200) cubit feet of air per minute for every person working therein; and in no case, in mines generating explosive gases, shall the velocity exceed four hundred and fifty (450) lineal feet per minute, in any opening through which the air currents pass, if gauze safety lamps are used, except in the main inlet or outlet airways.

Section 8. All cross-cuts connecting the main inlet and outlet air passages of every district, when it becomes necessary to close them permanently, shall be substantially closed with brick or other suitable building material, laid in mortar or cement whenever practicable, but in no case shall said air stoppings be constructed of plank except for temporary purposes.

Section 9. All doors used in assisting or in any way affecting the ventilation shall be so hung and adjusted that they will close automatically.

Section 10. All main doors shall have an attendant whose constant duty it shall be to open them for transportation and travel and prevent them from standing open longer than is necessary for persons or cars to pass through.

Section 11. All main doors shall be so placed that when one door is open, another, which has the same effect upon the same current, shall be and remain closed and thus prevent any temporary stoppage of the air current.

Section 12. An extra main door shall be so placed and kept standing open, so as to be out of reach of accident, and so fixed that it can be at once closed in the event of an accident to the doors in use.

Section 13. The frame work of such main doors shall be substantially secured in stone or brick, laid in mortar or cement unless otherwise permitted in writing by the Inspector.

Section 14. All permanent air bridges shall be substantially built of such material and of such strength as the circumstances may require.

Section 15. The quantities of air in circulation shall be ascertained with an anemometer or other efficient instrument; such measurements shall be made by the inside foreman or his assistant once every week at the inlet and outlet airways, also at or near the face of each gangway and at the nearest cross-heading to the face of each gangway and at the nearest cross-heading to the face of the inside and outside chamber or breast where men are employed, and the headings shall not be driven more than sixty (60) feet from the face of each chamber or breast and shall be entered in the colliery report book.

Section 16. A report of these air measurements shall be sent to the inspector before the twelfth day of each month, for the preceding month, together with a statement of the number of persons employed in each district.

Section 17. All ventilators used at mines shall be provided with recording instruments by which the speed of the ventilators or the ventilating pressure shall be registered for each hour, and such data shall be preserved at the colliery for future reference, for a period of three months.

Section 18. Any person or persons who shall neglect or fail to comply with the provisions of this article, or who shall make any false report in regard to air measurements, shall be guilty of an offense against this act.

Article XI.

Props and Timbers.

Section 1. It shall be the duty of the owner, operator, superintendent or mine foreman of every mine to furnish to the miners all props, ties, rails and timbers necessary for the safe mining of coal and for the protection of the lives of the workmen. Such props, ties, rails and timbers shall be suitably prepared and shall be delivered to the workmen as near to their working places as they can be conveyed in ordinary mine cars, free of charge.

Section 2. Every workman in want of props, ties, rails or timbers shall notify the mine foreman or his assistant of the fact at least one day in advance, giving the length of the props or timber required; and in case of danger from loose roof or sides, he shall not continue to cut or load coal until the said props and timber have been properly furnished and the place made secure.

Section 3. A failure to comply with the provisions of this article shall be deemed an offense against this act, and shall be taken to be

negligence per se on the part of the owner, operator, superintendent or mine foreman, as the case may be, of such mine, in action for the recovery of damages for accidents resulting from the insufficient propping of such mine, through failure to furnish the necessary props or timbers.

Article XII.

General Rules.

The following general rules shall be observed in every mine to which this act applies.

Rule 1. The owner, operator or superintendent of a mine or colliery shall use every precaution to ensure the safety of the workmen in all cases, whether provided for in this act or not, and he shall place the underground workings thereof, and all that is related to the same, under the charge and daily supervision of a competent person who shall be called "mine foreman."

Rule 2. Whenever a mine foreman cannot personally carry out the provisions of this act so far as they pertain to him, the owner, operator or superintendent shall authorize him to employ a sufficient number of competent persons to act as his assistants, who shall be subject to his orders.

Rule 3. The mine foreman shall have charge of all matters pertaining to ventilation, and the speed of the ventilators shall be particularly under his charge and direction; and any superintendent who shall cause the mine foreman to disregard the provisions of this act shall be amenable in the same manner as the mine foreman.

Rule 4. All accessible parts of an abandoned portion of a mine in which explosive gases have been found, shall be carefully examined by the mine foreman or his assistants at least once a week, and all danger found existing therein shall be immediately removed. A report of said examination shall be recorded in a book kept at the colliery for that purpose and signed by the person making the same.

Rule 5. In mines generating explosive gases, the mine foreman or his assistant shall make a careful examination every morning of all working places and traveling roads and all other places which might endanger the safety of the workmen, before the workmen shall enter the mine, and such examination shall be made with a safety lamp within three (3) hours at most, before time for commencing work, and a workman shall not enter the mine or his working place until the said mine or part thereof and working place are reported to be safe. Every report shall be recorded without delay in a book which shall be kept at the colliery for the purpose and shall be signed by the person making the examination.

Rule 6. The person who makes said examination shall establish proof of the same by marking plainly the date thereof at the face of each working place and all other places examined.

Rule 7. A station or stations shall be established at the entrance to each mine or different parts of each mine, as the case may require, and a workman shall not pass beyond any such station until the mine or part of the mine beyond the same has been inspected and reported to be safe. It shall be the duty of the fire boss to remain at the danger station until relieved by some person authorized by himself or the mine foreman, who shall stand guard until said mine or part of mine shall be reported safe, and he shall not let any person pass without permission from the fire boss.

Rule 8. If at any time it is found by the person for the time being in charge of the mine or any part thereof, that by reason of noxious gases prevailing in such mine or such part thereof, or of any cause whatever the mine or the said part is dangerous, every precaution shall be used to ensure the safety of the workmen; and every workman, except such persons as may be required to remove the danger, shall be withdrawn from the mine, or such part thereof as is so found dangerous, until the said mine or said part thereof is examined by a competent person and reported by him to be safe.

Rule 9. In every working approaching any place where there is likely to be accumulation of explosive gases, or in any working in which danger is imminent from explosive gases, no light or fire other than a locked safety lamp shall be allowed or used. Whenever safety lamps are required in any mine they shall be the property of the owner of said mine, and a competent person, who shall be appointed for the purpose, shall examine every safety lamp immediately before it is taken into the workings for use, and ascertain it to be clean, safe and securely locked, and safety lamps shall not be used until they have been so examined and found safe, clean and securely locked, unless permission be first given by the mine foreman to have the lamps used unlocked.

Rule 10. No one, except a duly authorized person, shall have in his possession a key or any other contrivance for the purpose of unlocking any safety lamp in any mine where locked lamps are used. No lucifer matches or any other apparatus for striking light shall be taken into said mine or parts thereof.

Rule 11. No blast shall be fired in any mine where locked safety lamps are used except by permission of the mine foreman or his assistants, and before a blast is fired, the person in charge must examine the place and adjoining places and satisfy himself that it is safe to fire such blast before such permission is given.

Rule 12. The mine foreman or his assistant shall visit and examine every working place in the mine at least once every alternate day.

while the men of such place are or should be at work, and shall direct that each and every working place is properly secured by props or timber, and that safety in all respects is assured by directing that all loose coal or rock shall be pulled down or secured, and that no person shall be permitted to work in an unsafe place unless it be for the purpose of making it secure.

Rule 13. The mine foreman, or some other competent person or persons to be designated by him, shall examine at least once every day all slopes, shafts, main roads, traveling ways, signal apparatus, pulleys and timbering and see that they are in safe and efficient working condition.

Rule 14. Any person having charge of a working place in any mine shall keep the roof and sides thereof properly secured by timber or otherwise so as to prevent such roof and sides from falling, and he shall not do any work or permit any work to be done under loose or dangerous material except for the purpose of securing the same.

Rule 15. Whenever a place is likely to contain a dangerous accumulation of water, the working approaching such place shall not exceed twelve (12) feet in width, and there shall be constantly kept, at a distance of not less than twenty (20) feet in advance, at least one (1) bore hole near the center of the working and sufficient flank bore holes on each side.

Rule 16. No person shall ride upon or against any loaded car, cage or gunboat in any shaft, slope or plane in or about a mine or colliery.

Rule 17. Not more than ten (10) persons shall be hoisted or lowered at any one time in any shaft or slope, and whenever five persons shall arrive at the bottom of any shaft or slope in which persons are regularly hoisted or lowered they shall be furnished with an empty car or cage and be hoisted, except however, in mines where there is provided a traveling way having an average pitch of fifteen (15) degress or less and not more than one thousand (1,000) feet in length. This, however, shall not prohibit the hoisting or lowering of twenty (20) persons at one time on slopes where two (2) or more loaded cars are regularly hoisted: Provided, That not less than thirty (30) workmen working therein, make such request in writing, to the Inspector of the district, and if, in his judgment, the hoisting appliances in every respect are of sufficient strength, he may comply with the request of the workmen:

Provided, That in any coal mine or colliery where the hoisting appliances are not of sufficient strength to hoist or lower the number of persons named, he shall have the power to reduce the number of persons to be hoisted or lowered.

Rule 18. An engineer placed in charge of an engine whereby per-

sons are hoisted or lowered in any mine, shall be a sober and competent person of not less than twenty-one (21) years of age.

Rule 19. Every engineer shall work his engine slowly and with great care when any person is being lowered or hoisted in a shaft or slope and no one shall interfere with or intimidate him while in the discharge of his duties.

Rule 20. An engineer who has charge of the hoisting machinery by which persons are lowered or hoisted in a mine, shall be in constant attendance for that purpose during the whole time any person or persons are below ground, and he shall not allow any person or persons, except such as may be deputed by the owner, operator or superintendent, to handle or meddle with the engine under his charge or any part of its machinery.

Rule 21. When any person is about to descend or ascend a shaft or slope, the headman or footman, as the case may be, shall inform the engineer by signal or otherwise of the fact, and the engineer shall return a signal before moving or starting the engine. In the absence of a headman or footman the person or persons about to descend or ascend shall give and receive the signals in the same manner.

Rule 22. The owner, operator or superintendent of a colliery shall place a competent person to be called "outside foreman," in charge of the breaker and the outside work of such colliery and who shall direct, and, as far as practicable, see that the provisions of this act are complied with in respect to the breaker, outside machinery, ropes, cages and all other things pertaining to the outside work, unless otherwise provided for in this act.

Rule 23. In all coal breakers where the coal dust is so dense as to be injurious to the health of persons employed therein, the owner, operator or superintendent of said breaker shall, upon the request of the Inspector, immediately adopt measures for the removal of the dust, as far as practicable.

Rule 24. Any miner or other workman who shall discover anything wrong with the ventilating current or with the condition of the roof, side, timber or roadway, or with any other part of the mine in general, such as would lead him to suspect danger to himself or his fellow workmen or to the property of his employer, shall immediately report the same to the mine foreman or other person, for the time being in charge of that portion of the mine.

Rule 25. Any person or persons who shall knowingly or wilfully damage, or without proper authority, remove or render useless any fencing, means of signaling, apparatus, instrument or machine, or shall throw open or obstruct any air way, or open a ventilating door and not have the same closed, or enter a place in or about a mine

against caution, or carry fire, open lights or matches in places where safety lamps are used, or handle without proper authority, or disturb any machinery or cars, or do any other act or thing whereby the lives or health of persons or the security of the property in or about a mine or colliery are endangered, shall be guilty of an offense against this act.

Rule 26. Gunpowder or any other explosive shall not be stored in a mine, and a workman shall not have at any time in any one place, more than one keg or box containing twenty-five (25) pounds, unless more is necessary for a person to accomplish one day's work.

Rule 27. Every person who has gunpowder or other explosive in a mine, shall keep it in a wooden or metallic box securely locked, and such box shall be kept at least ten (10) feet from the tracks in all cases where room at such a distance is available.

Rule 28. Whenever a workman shall open a box containing explosive or while in any manner handling the same, he shall first place his lamp not less than five (5) feet from such explosive and in such a position that the air current cannot convey sparks to it, and a workman shall not approach nearer than five (5) feet to an open box containing powder, with a lamp, lighted pipe or any other thing containing fire.

Rule 29. When high explosives other than gunpowder are used in any mine, the manner of storing, keeping, moving, charging and firing or in any manner using such explosives, shall be in accordance with special rules as furnished by the manufacturers of the same. The said rules shall be endorsed with his or their official signature and shall be approved by the owner, operator or superintendent of the mine in which such explosives are used.

Rule 30. In charging holes for blasting in slate or rock in any mine, no iron or steel-pointed needle shall be used, and a tight cartridge shall not be rammed into a hole in coal, slate or rock with an iron or steel tamping bar, unless the end of the tamping bar is tipped with at least six (6) inches of copper or other soft metal.

Rule 31. A charge of powder or any other explosive in slate or rock which has missed fire shall not be withdrawn or the hole reopened.

Rule 32. A miner or other person who is about to explode a blast by the use of patent or other squibs or matches, shall not shorten the match, nor saturate it with mineral oil, nor turn it down when placed in the hole, nor ignite it except at its extreme end, nor do anything tending to shorten the time the match will burn.

Rule 33. When a workman is about to fire a blast he shall be careful to notify all persons who may be in danger therefrom, and shall give sufficient alarm before and after igniting the match so that any

person or persons who may be approaching shall be warned of the danger.

Rule 34. Before commencing work and also after the firing of every blast, the miner working a breast or any other place in a mine, shall enter such breast or place to examine and ascertain its condition, and his laborer or assistant shall not go to the face of such breast or place until the miner has examined the same and found it to be safe.

Rule 35. No person shall be employed to blast coal or rock unless the mine foreman is satisfied that such person is qualified, by experience and judgment, to perform the work with ordinary safety.

Rule 36. A person who is not a practical miner shall not charge or fire a blast in the absence of an experienced miner, unless he has given satisfactory evidence of his ability to do so with safety, and has obtained permission from the mine foreman or person in charge.

Rule 37. An accumulation of gas in mines shall not be removed by brushing where it is practicable to remove it by brattice.

Rule 38. When gases ignited by blast or otherwise, the person igniting the same shall immediately extinguish it, if possible, and notify the mine foreman or his assistant of the fact, and workmen must see that no gas blowers are left burning upon leaving their working places.

Rule 39. Every fireman in charge of a boiler or boilers for the generation of steam, shall keep a constant watch of the same. He shall see that the steam pressure does not any time exceed the limit allowed by the outside foreman or superintendent. He shall frequently try the safety valve, and shall not increase the weight on the same. He shall maintain a proper depth of water in each boiler, and if anything should happen to prevent this, he shall report the same without delay to the foreman, for the time being in charge, and take such other action as may under the particular circumstances be necessary for the protection of life and preservation of property.

Rule 40. At every shaft or slope in which provision is made in this act for lowering and hoisting persons, a headman and footman shall be designated by the superintendent or foreman to be at their proper places from the time that persons begin to descend, until all the persons who may be at the bottom of said shaft or slope when quitting work shall be hoisted. Such headman and footman shall personally attend to the signals and see that the provisions of this act, in respect to lowering and hoisting persons in shafts or slopes, shall be complied with.

Rule 41. No person, except the man giving the signal, shall jump on a car, cage or gunboat after the signal to start has been given, and if any person should enter a car, cage or gunboat in excess of

the lawful number the headman or footman shall notify him of the fact and request him to get off, which request must be immediately complied with. Any violation of this rule must be reported promptly to the mine foreman.

Rule 42. An empty trip shall be hoisted in any shaft or slope where the engine has been standing idle for an hour or more, before men are hoisted or lowered in said shafts or slopes, and no person or persons shall ascend any shaft or slope when working on the night turn, until one trip shall first be hoisted therein.

Rule 43. Every passage-way used by persons in any mines and also used for transportation of coal or other material, shall be made of sufficient width to permit persons to pass moving cars with safety, but if found impracticable to make any passage-way of sufficient width, then holes of ample dimensions, and not more than one hundred and fifty (150) feet apart, shall be made on one side of said passage-way. The said passage-way and safety holes shall be kept free from obstructions and shall be well drained; the roof and sides of the same shall be made secure.

Rule 44. When locomotives are used in any mine their speed shall not exceed six (6) miles per hour, and an efficient alarm shall be pro vided and attached to the front end of every train of cars pushed by a locomotive in any mine or part of a mine.

Rule 45. Locomotives propelled by steam, if using fire, shall not be used in any passage-way which is also used as an in-take air-way to any mine or part of a mine where persons are employed, unless there be a sufficient quantity of air circulating therein to maintain a healthy atmosphere.

Rule 46. No person shall couple or uncouple loaded or empty cars while the same are in motion: Provided, however, That this shall not apply to the top or bottom men of slopes, planes or shafts.

Rule 47. When cars are run on gravity roads by breaks or sprags, the runner shall only ride on the rear end of the last car, and when said cars are run by sprags, a space of not less than two (2) feet from the body of the car shall be made on one or both sides of the track, wherever it may be necessary for the runner to pass along the side of the moving car or cars, and said space or passage-way shall always be kept free from obstructions.

Rule 48. No miner or laborer shall run cars out of any breast or chamber or on any gravity road unless he is a suitable person, employed by the mine foreman for that particular work; and no person shall be employed by any mine foreman to perform such work, under the age of sixteen (16) years.

Rule 49. Safety holes shall be made at the bottom of all slopes and planes and be kept free from obstruction to enable the footman to escape readily in case of danger.

Rule 50. Safety blocks or some other device for the purpose of preventing cars from falling into a shaft or running away on a slope or plane, shall be placed at or near the head of every shaft, slope or plane, and said safety blocks or other device must be maintained in good working order.

Rule 51. No person shall travel on any gravity train while cars are being hoisted or lowered thereon. Whenever ten (10) persons arrive at the bottom or top of any plane on which it is necessary for men to travel, traffic thereon shall be suspended for a period of time long enough to permit them to reach the top or bottom of said plane.

Rule 52. No mine cars shall be used in any mine unless the bumpers are of sufficient length and width to keep the bodies of said cars separated by not less than twelve (12) inches when the cars stand on a straight level road and the bumpers touch each other.

Rule 53. It shall be the duty of the owner, operator or superintendent of any or all coal breakers, to have them properly heated in order to prevent injury to the health of persons employed therein.

Rule 54. For the purpose of making known the rules and the provisions of this act to all persons employed in or about such mine or colliery to which this act applies, an abstract of the act and rules shall be posted up in legible characters in some conspicuous place or places at or near the mine or colliery, where they may be conveniently read by the persons employed, and so often as the same becomes obliterated or destroyed the owner, operator or superintendent shall cause them to be renewed with all reasonable dispatch. Any person who pulls down, injures or defaces such abstract of the act or rules when posted up in pursuance to the provisions of this act, shall be guilty of an offense against this act.

Rule 55. No person or persons working in any coal mine or colliery shall cut any props or timbers while the same are in position to support the roof or sides. When it becomes necessary to remove any of the said props or timbers for the purpose of mining coal that may be supported by the same, to dislodge any of the said props or timbers, it must be done by blasting.

Rule 56. It shall not be lawful for any mine foreman or superintendent of any mine or colliery to employ any person who is not competent to understand the regulations of any mine evolving explosive gases: Provided, That this rule will not apply to a section of mine, free from the said explosive gases.

Rule 57. Any superintendent or mine foreman who prevents the footman from giving an empty car or cage to the number of men designated in a former rule, shall, upon information by any person engaged in the mines, given the mine Inspector, be fined the sum of fifty dollars for each offense.

Rule 58. Every person who fails to comply with any of the foregoing rules or any of the provisions of this article, shall be guilty of an offense against this act.

Article XIII.

Inquests.

Section 1. Whenever loss of life to a miner or other employe occurs in or about a mine or colliery, notice thereof shall be given promptly to the Inspector of mines for the district in which the accident occurred, by the mine foreman or outside foreman or other person having immediate charge of the work at the time of the accident; and when death results from personal injury such notice shall be given promptly after the knowledge of the death comes to the said foreman or person in charge.

Section 2. Whenever loss of life occurs or whenever the lives of persons employed in a mine or at a colliery are in danger from any accident, the Inspector of mines shall visit the scene of the accident as soon as possible thereafter and offer such suggestions, as in his judgment shall be necessary, to protect the lives and secure the safety of the persons employed. In case of death from such accident, and after examination he finds it necessary that a coroner's inquest shall be held, he shall notify the coroner to hold such inquest without delay, and if no such inquest be held by the coroner within twenty-four (24) hours after such notice, the Inspector shall institute a further and fuller examination of such accident, and for this purpose he shall have power to compel the attendance of witnesses at such examination and to administer oaths and affirmations to persons testifying thereat. The Inspector shall make a record of all such investigations and accidents, which record shall be preserved in his office. The costs of such investigation shall be paid by the county in which the accident occurred in like manner as costs of inquests held by coroners or justices of the peace are now paid.

Section 3. An inquest held by the coroner upon the body of a person killed by explosion or other accident, shall be adjourned by the coroner if the Inspector of mines be not present to watch the proceedings, and the coroner in such case shall notify the Inspector, in writing, of such adjourned inquest, and the time and place of holding the same, at least three (3) days previous thereto.

Section 4. Due notice of an intended inquest to be held by the coroner, shall be given by the coroner to the Inspector, and at any such inquest the Inspector shall have the right to examine witnesses.

Section 5. If, at any inquest held over the body or bodies of persons whose death was caused by an accident in or about a mine or

colliery, the Inspector be not present, and it is shown by the evidence given at the inquest that the accident was caused by neglect or by any defect in or about the mine or colliery, which, in the judgment of the jury, requires a remedy, the coroner shall send notice in writing to said Inspector of such neglect or default.

Section 6. No person who is interested personally, nor a person employed in the mine or at a colliery in or at which loss of life has occurred by accident, shall be qualified to serve on a jury empaneled on the inquest, and a constable or other officer shall not summons such a person so qualified as juror, but the coroner shall empanel a majority of the jury from miners who are qualified to judge of the nature of the accident; every person who fails to comply with the provisions of this article shall be guilty of an offense against this act.

Article XIV.

Returns, Notices, Et Cetera.

Section 1. Notices of death or serious injuries resulting from accidents in or about mines or collieries, shall be made to the Inspector of mines, in writing, and shall specify the name, age and occupation of the person killed or injured, and also the nature and character of the accident and of the injury caused thereby.

Section 2. The owner, operator or superintendent of a mine or colliery, shall, without delay, give notice to the Inspector of the district in which said mine or colliery is situated in any or all of the following cases:

First. Where any working is commenced for the purpose of opening a new slope or mine to which this act applies.

Second. Where any mine is abandoned or the workings thereof discontinued.

Third. Where the working of any mine is recommenced after any abandonment or discontinuance for a period exceeding three months.

Fourth. Where any new coal breaker is completed and work commenced therein for the purpose of preparing coal for market.

Fifth. Where the pillars of a mine are to be removed or robbed.

Sixth. Where a squeeze or crush or any other cause or change may seem to affect the safety of persons employed in any mine, or where fire occurs or a dangerous body of gas is found in any mine.

Section 3. On or before the first day of February in each year, the owner, operator or superintendent of every mine or colliery, shall send to the Inspector of the district, a correct report specifying with respect to the year ending December thirty-first, previously, the name of the operator and officials of the mine, with his postoffice address; the quantity of coal mined; the amount of powder or other ex-

plosive consumed; the number of persons employed above and below ground in or about such colliery, classifying the persons so employed. The report shall be in such form as may be from time to time prescribed by the Inspector of the district. Blank forms for said reports shall be furnished by the Commonwealth.

Article XV.

Injunctions.

Section 1. Upon application of the inspector of mines of the proper district, acting in behalf of the Commonwealth, any of the courts of law or equity having jurisdiction where the mine or colliery proceeded against is situated, whether any proceedings have or have not been taken, shall prohibit, by injunction or otherwise, the working of any mine or colliery in which any person is employed or is permitted to be for the purpose of working, in contravention of the provisions of this act, and may award such costs in the matter of the injunction or other proceedings as the court may think just; but this section shall be without prejudice to any other remedy permitted by law for enforcing the provisions of this act. Written notice of the intention to apply for such injunction in respect to any mine or colliery, shall be made to the owner, operator or superintendent of such mine or colliery not less than twenty-four (24) hours before the application is made.

Article XVI.

Arbitration.

Section 1. Whenever an Inspector finds any mine colliery or part thereof, or any matter, thing or practice connected with such mine, which in any respect thereof is not covered by or provided against by any provision of this act or by any rule, to be dangerous or defective, or in his judgment tends to bodily injury to a person, he shall give notice thereof in writing to the owner, operator or superintendent of such mine or colliery, stating in such notice the particular matter or defect requiring remedy and may demand that the same be remedied; but the owner, operator or superintendent of said mine or colliery shall have the right to refer the demand of the inspector to a board of arbitration, and the matter shall then be arbitrated within forty-eight (48) hours of the time such complaint or demand be made. And the party against whom the award is given shall pay all cost attending the case. The said board of arbitration shall be composed of three (3) persons, one of whom shall be chosen by the Inspector, one by the said owner, operator or superintendent and a third by the two thus selected, and the decision of a majority of such board shall be final and binding in the matter.

Article XVII.

Penalties.

Section 1. Any judge of the court of quarter sessions of the peace of the county in which the mine or colliery, at which the offense, act of omission as hereinafter stated has occurred, is situated, is hereby authorized and required, upon the presentation to him of the affidavit of any citizen of the Commonwealth setting forth that the owner, operator or superintendent, or any other person employed in or about such mine or colliery had been negligently guilty of an offense against the provisions of this act, whereby a dangerous accident had resulted or might have resulted, to any person or persons employed in such mine or colliery, to issue a warrant to the sheriff of said county directing him to cause such person or persons to be arrested and brought before said judge, who shall hear and determine the guilt or innocence of the person or persons so charged; and if convicted he or they shall be sentenced to pay a fine not exceeding five hundred dollars, in all cases not otherwise provided for in this act, or an imprisonment in the county jail for a period not exceeding three (3) months, or both, at the discretion of the court: Provided, That any defendant may waive a trial before a judge as herein provided and at any time, at or before the time of such trial, demand a trial by a jury in the court of quarter sessions, in which case he may enter into a recognizance before said judge with such surety or sureties and in such sum as said judge may approve, conditioned for his appearance at the next court of quarter sessions to answer the charge against him and abide the orders of the court in the premises, meanwhile to be of good behavior and keep the peace, or in default of such recognizance to be committed to the county jail to await such trial.

Section 2. If any person shall feel himself aggrieved by such conviction and sentence before a judge as aforesaid, he may appeal therefrom subject to the following conditions, namely: The appellant shall, within seven days after the decree has been made, give notice to the prosecutor of his intention to appeal, and within the same time enter into a recognizance, with such surety or sureties and in such sum as shall be approved by said judge, conditioned to appear and try such appeal before the next court of quarter sessions of the peace and to abide the judgment of the court thereon and to pay all such costs and penalties as may be there awarded, and upon the compliance with such conditions the judge shall release the appellant from custody pending the appeal.

Section 3. Nothing in this act shall prevent any person from being indicted or liable under any other act, to any higher penalty or pun-

ishment than is herein provided, and if the court before whom any such proceeding is had shall be of the opinion that proceedings ought to be taken against such persons under any other act, or otherwise, he may adjourn the case to enable such proceedings to be taken.

Section 4. All offenses under this act are declared to be misdemeanors and in default of payment of any penalty or cost by the party or parties sentenced to pay the same, he or they may be imprisoned for a period not exceeding three (3) months and not less than thirty (30) days.

Section 5. For any violation of duty by the mine Inspector prescribed by this act, he shall be deemed guilty of a misdemeanor, and upon conviction, be sentenced to pay a fine of not more than three hundred dollars or be imprisoned for a period not exceeding three months, or either, or both, at the discretion of the court.

Section 6. All fines imposed under this act shall be paid into the county treasury for the use of the county.

Section 7. No conviction or acquittal under this act, in any complaint, shall be received in evidence upon the trial of any action for damages arising from the negligence of any owner, operator or superintendent or employe in any mine or colliery.

Section 8. That for any injury to person or property occasioned by any violation of this act or any failure to comply with its provisions by any owner, operator, superintendent, mine foreman or fire boss of any coal mine or colliery, a right of action shall accrue to the party injured against said owner or operator for any direct damages he may have sustained thereby; and in case of loss of life by reason of such neglect or failure aforesaid, a right of action shall accrue to the widow and lineal heirs of the person whose life shall be lost, for like recovery of damages for the injury they shall have sustained.

Article XVIII.

Definition of Terms.

In this act, unless the context otherwise requires, the term "coal mine or colliery" includes every operation and work, both under ground and above ground, used or to be used for the purpose of mining and preparing coal.

The term "workings" includes all the excavated parts of a mine, those abandoned as well as the places actually at work.

The term "mine" includes all underground workings and excavations and shafts, tunnels and other ways and openings; also all such shafts, slopes, tunnels and other openings in course of being sunk or driven, together with all roads, appliances, machinery and materials connected with the same below the surface.

The term "shaft" means a vertical opening through the strata and which is or may be used for the purpose of ventilation or drainage or for hoisting men or material in connection with the mining of coal.

The term "slope" means any inclined way or opening used for the same purpose as a shaft.

The term "breaker" means the structure containing the machinery used for the preparation of coal.

The term "owners" and "operators" means any person or body corporate who is the immediate proprietor or lessee or occupier of any coal mine or colliery or any part thereof. The term "owner" does not include a person or body corporate who merely receives a royalty, rent or fine from a coal mine or colliery or part thereof, or is merely the proprietor of the mine subject to any lease, grant or license for the working or operating thereof, or is merely the owner of the soil and not interested in the minerals of the mine or any part thereof. But any "contractor" for the working of a mine or colliery or any part or district thereof, shall be subject to this act as an operator or owner, in like manner as if he were the owner.

The term "superintendent" means the person who shall have, on behalf of the owner, general supervision of one or more mines or collieries.

Article XIX.

All laws or parts of laws inconsistent or in conflict with the provisions of this act are hereby repealed.

Approved—The 2d day of June, A. D. 1891.

ROBT. E. PATTISON.

LAW RELATING TO BITUMINOUS COAL MINES.

AN ACT

Relating to bituminous coal mines and providing for the lives, health, safety and welfare of persons employed therein.

ARTICLE I.

Survey—Maps and Plans.

Section 1. Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same, That the operator or superintendent of every bituminous coal mine shall make, or cause to be made by a competent mining engineer or surveyor, an accurate map or plan of such coal mine not smaller than on a scale of two hundred feet to an inch which map shall show as follows:

First. All measurements of said mine in feet, or decimal parts thereof.

Second. All the openings, excavations, shafts, tunnels, slopes, planes main entries, cross entries, rooms, et cetera, in proper numerical order in each opened strata of coal in said mine.

Third. By darts or arrows made thereon by a pen or pencil the direction of air currents in the said mine.

Fourth. An accurate delineation of the boundary lines between said coal mine and all adjoining mines or coal lands, whether owned or operated by the same operator, or other operator, and the relation and proximity of the workings of said mine to every other adjoining mine or coal lands.

Fifth The elevation above mean tide at Sandy Hook of all tunnels, and entries, and of the face of working places adjacent to boundary lines, at points not exceeding three hundred feet apart.

Sixth. The bearings and lengths of each tunnel or entry, and of the boundary or property lines. The said map or plan, or a true copy thereof, shall be kept in the general mine office by the said operator or superintendent for use of the mine Inspector, and for the inspection of any person or persons, working in said mine whenever said person or persons, shall have cause to fear that any working place is becoming dangerous by reason of its proximity to other workings that may contain water or dangerous gas.

Section 2. At least once in every six months, or oftener, if necessary, the operator or superintendent of each mine shall cause to be shown accurately on the map or plan said coal mine, all the excavations made therein during the time elapsing since such excavations were last shown upon said map or plan, and all parts of said mine which were worked out or abandoned during said elapsed period of time shall be clearly indicated by colorings on said map or plan, and whenever any of the workings or excavations of said coal mine have been driven to their destination, a correct measurement of all such workings or excavations shall be made promptly, and recorded in a survey book prior to the removal of the pillars, or any part of the same, from such workings or excavations.

Section 3. The operator or superintendent of every coal mine shall, within six months after the passage of this act, furnish the mine Inspector of the district, in which said mine is located, with a correct copy on tracing muslin, or sun print, of the map or plan of said mine hereinbefore provided for. And the Inspector of the district shall, at the end of each year, or twice a year if he requires it, forward said map or plan to the proper person at any particular mine, whose duty it shall be to place, or cause to be placed, on said map or plan all extensions and worked out or abandoned parts of the mine during the preceding six or twelve months, as the case may be, and return the same to the mine Inspector within thirty days from the time of receiving it. The copies of the maps or plans of the several coal mines of each district, as hereinbefore required, to be furnished to the mine Inspector, shall remain in the care of the Inspector of the district in which the said mines are situated, as official records, to be transferred by him to his successor in office, but it is provided that in no case shall any copy of the same be made without the consent of the operator or his agent.

Section 4. If any superintendent or operator of mines shall neglect or fail to furnish to the mine Inspector any copies of maps or plans, as hereinbefore required by this act, or if the mine Inspector shall believe that any map or plan of any coal mine made or furnished in pursuance of the provisions of this act is materially inaccurate or imperfect, then, in either case, the mine Inspector is hereby authorized to cause a correct survey and map or plan of said coal mine to be made at the expense of the operator thereof, the cost of which shall be recoverable from said operator as other debts are recoverable by law: Provided, however, That if the map or plan which may be claimed by the mine Inspector to be inaccurate shall prove to be correct, then the Commonwealth shall be liable for the expense incurred by the mine Inspector in causing to be made said test, survey and map, and the costs thereof, ascertained by the Auditor General

by proper vouchers and satisfactory proof, shall be paid by the State Treasurer upon warrants which the said Auditor General is hereby directed to draw for the same.

Article II.

Section 1. It shall not be lawful for the operator, superintendent or mine foreman of any bituminous coal mine to employ more than twenty person within said coal mine, or permit more than twenty persons to be employed therein, at any one time unless they are in communication with at least two available openings to the surface from each seam or stratum of coal worked in such mine, exclusive of the furnace, upcast shaft or slope: But provided, That in any mine operated by shaft or slope and ventilated by a fan, if the air shaft shall be divided into two compartments, one of them may be used for an air-way and the other for the purpose of egress and ingress from and into said mine by the persons therein employed, and the same shall be considered a compliance with the provisions of this section hereinbefore set forth. And there shall be cut out or around the side of every hoisting shaft, or driven through the solid strata at the bottom thereof, a traveling way, not less than five feet high and three feet wide, to enable persons to pass the shaft in going from one side of it to the other without passing over or under the cage or other hoisting apparatus.

Section 2. The shaft or outlet, other than the main shaft or outlet shall be separated from the main outlet and from the furnace shaft by natural strata at all points by a distance of not less than one hundred and fifty feet (except in all mines opened prior to June thirtieth, one thousand eight hundred and eighty-five, where such distances may be less if in the judgment of the mine Inspector one hundred and fifty feet is impracticable). If the mine be worked by drift, two openings exclusive of the furnace upcast shaft and not less than thirty feet apart, shall be required (except in drift mines opened prior to June thirtieth, one thousand eight hundred and eighty-five, where the mine Inspector of the district shall deem the same impracticable). Where the two openings shall not have been provided as required hereinbefore by this act, the mine Inspector shall cause the second to be made without delay, and in no case shall furnace ventilation be used where there is only one opening into the mine.

Section 3. Unless the mine Inspector shall deem it impracticable, all mines shall have at least two entries or other passage ways, one of which shall lead from the main entrance and the other from the opening into the body of the mine, and said two passage-ways shall be kept well drained and in a safe condition for persons to travel therein throughout their whole length so as to obtain, in cases of emergency, a second way for egress from the workings. No part of

said workings shall at any time be driven more than three hundred feet in advance of the aforesaid passage-ways, except entries, air-ways or other narrow work, but should an opening to the surface be provided from the interior of the mine, the passage-ways aforesaid may be made and maintained therefrom into the working part of the mine, and this shall be deemed sufficient compliance with the provisions of this act relative thereto; said two passage-ways shall be separated by pillars of coal or other strata of sufficient strength and width.

Section 4. Where necessary to secure access to the two passage-ways required in section three of article two of this act, in any slope mine where the coal seam inclines and has workings on both sides of said slope, there shall be provided an overcast for the use of persons working therein, the dimensions of which shall not be less than four feet wide and five feet high. Said overcast shall connect the workings on both sides of said slope, and the intervening strata between the slope and the overcast shall be of sufficient strength and thickness at all points for its purpose: Provided, That if said overcast be substantially constructed of masonry or other incombustible material, it shall be deemed sufficient.

Section 5. When the opening or outlet, other than the main opening, is made and does not exceed seventy-five feet in vertical depth, it shall be set apart exclusively for the purpose of ingress to or egress from the mine by any person or persons employed therein, it shall be kept in a safe and available condition, and free from steam and dangerous gases, and all other obstructions, and if such opening is a shaft it shall be fitted with safe and convenient stairs with steps of an average tread of ten inches, and nine inches rise, not less than two feet wide and to not exceed an angle of sixty degrees descent, with landings of not less than eighteen inches wide and four feet long at easy and convenient distances: Provided, That the requirements of this section shall not be applicable to stairways in use prior to June thirtieth, one thousand eight hundred and eighty-five, when in the judgment of the mine Inspector they are sufficiently safe and convenient. And water coming from the surface or out of the strata in the shaft shall be conducted away by rings, casing or otherwise, and be prevented from falling upon persons who are ascending or descending the stairway of the shaft.

Section 6. Where any mine is operated by a shaft which exceeds seventy-five feet in vertical depth, the persons employed in said mine shall be lowered into and raised from said mine by means of machinery, and in any such mine the shaft, other than the main shaft, shall be supplied with safe and suitable machinery for hoisting and lowering persons, or with safe and convenient stairs for use in cases of emergency by persons employed in said mine: Provided, That any

mine operated by two shafts, and where safe and suitable machinery is provided at both shafts for hoisting coal or persons, shall have sufficiently complied with the requirements of this section.

Section 7. At any mine where one of the two openings required hereinbefore is a slope, and is used as a traveling way, it shall not have a greater angle of descent than twenty degrees and may be of any depth.

Section 8. The machinery used for lowering or raising the employes into or out of the mine, and the stairs used for ingress or egress, shall be kept in a safe condition and inspected once each twenty-four hours by a competent person employed for that purpose. And such machinery and the method of its inspection shall be approved by the mine Inspector of the district in which the mine is situated.

Article III.

Hoisting Machinery, Safety Catches, Signaling Apparatus, Et Cetera.

Section 1. The operator or superintendent shall provide and maintain from the top to bottom of every shaft where persons are raised or lowered, a metal tube suitably adapted to the free passage of sound through which conversation may be held between persons at the top and bottom of said shaft, and also a means of signaling from the top to the bottom thereof, and shall provide every cage or gear carriage used for hoisting or lowering persons with a sufficient overhead covering to protect those persons when using the same, and shall provide also for each said cage or carriage a safety catch approved by the mine Inspector. And the said operator or superintendent shall see that flanges with a clearance of not less than four inches when the whole of the rope is wound on the drum are attached to the sides of the drum of every machine that is used for lowering and hoisting persons in and out of the mine, and also that adequate brakes are attached to the drum. All shafts safety gates, to be approved by the mine Inspector of the district shall be so placed as to prevent persons from falling into the shaft.

Section 2. The main coupling chain attached to the socket of the wire rope shall be made of the best quality of iron, and shall be tested by weights or otherwise to the satisfaction of the mine Inspector of the district wherein the mine is located, and bridle chains shall be attached to the main hoisting rope above the socket from the top cross-piece of the carriage or cage, so that no single chain shall be used for lowering or hoisting persons into or out of the mines.

Section 3. No greater number of persons shall be lowered or hoisted at any one time than may be permitted by the mine Inspector

of the district, and notice of the number so allowed to be lowered or hoisted at any one time shall be kept posted up by the operator or superintendent in conspicuous places at the top and bottom of the shaft, and the aforesaid notice shall be signed by the mine Inspector of the district.

Section 4. All machinery about mines from which any accident would be liable to occur shall be properly fenced off by suitable guard railing.

Article IV.

Section 1. The operator or superintendent of every bituminous coal mine, whether shaft, slope or drift, shall provide and hereafter maintain ample means of ventilation for the circulation of air through the main entries, cross-entries and all other working places to an extent that will dilute, carry off and render harmless the noxious or dangerous gases, generated in the mine, affording not less than one hundred cubic feet per minute for each and every person employed therein, but in a mine where fire damp has been detected the minimum shall be one hundred and fifty cubit feet per minute for each person employed therein, and as much more in either case as one or more of the mine Inspectors may deem requisite.

Section 2. After May thirtieth, one thousand eight hundred and ninety-four, not more than sixty-five persons shall be permitted to work in the same air current: Provided, That a larger number, not exceeding one hundred, may be allowed by the mine Inspector where, in his judgment, it is impracticable to comply with the foregoing requirement, and mines where more than ten persons are employed, shall be provided with a fan furnace or other artificial means to produce the ventilation, and all stoppings between main intake and return air-ways hereinafter built, or replaced, shall be substantially built with suitable material, which shall be approved by the Inspector of the district.

Section 3. All ventilating fans shall be kept in operation continuously night and day, unless operations are indefinitely suspended, except written permission is given by the mine Inspector of the district to stop the same, and the said written permission shall state the particular hours the said fan may not be in operation, and the mine inspector shall have power to withdraw or modify such permission as he may deem best, but in all cases the fan shall be started two hours before the time to begin work. When the fan may be stopped by permission of the mine Inspector, a notice printed in the various languages used by persons employed in the mine, stating at what hour or hours the fan will be stopped, shall be posted by the mine foreman in a conspicuous place at the entrance or entrances to the mine.

Said printed notices shall be furnished by the mine Inspector and the cost thereof borne by the State: Provided, That should it at any time become necessary to stop the fan on account of accident, or needed repairs to any part of the machinery connected therewith, or by reason of any other unavoidable cause, it shall then be the duty of the mine foreman, or any other officials in charge, after first having provided as far as possible for the safety of the persons employed in the mine, to order said fan to be stopped so as to make the necessary repairs, or to remove any other difficulty that may have been the cause of its stoppage. And all ventilating furnaces in mines shall for two hours before the appointed time to begin work, and during working hours, be properly attended by a person employed for that purpose. In mines generating fire-damp in sufficient quantities to be detected by ordinary safety lamps, all main air bridges or overcasts made after the passge of this act shall be built of masonry, or other incombustible material of ample strength, or be driven through the solid strata.

In all mines the doors used in guiding and directing the ventilation of the mine shall be so hung and adjusted that they will close themselves, or be supplied with spring or pulleys so that they cannot be left standing open, and an attendant shall be employed at all principal doors through which cars are hauled for the purpose of opening and closing said doors when trips of cars are passing to and from the workings, unless an approved self-acting door is used, which principal doors shall be determined by the mine inspector or mine foreman. A hole for shelter shall be provided at each door so as to protect said attendant from being run over by the cars while attending to his duties, and persons employed for this purpose shall at all times remain at their post of duty during working hours: Provided, That the same person may attend two doors where the distance between them is not more than one hundred feet. On every inclined plane or road in any mine where haulage is done by machinery, and where a door is used, an extra door shall be provided to be used in case of necessity.

Article V.

Safety Lamps, Fire Bosses, Et Cetera.

Section 1. All mines generating fire-damp shall be kept free of standing gas in all working places and roadways. No accumulation of explosive gas shall be allowed to exist in the worked out or abandoned parts of any mine when it is practicable to remove it, and the entrance or entrances to said worked out and abandoned places shall be properly fenced off, and cautionary notices shall be posted upon said fencing to warn persons of danger.

Section 2. In all mines wherein explosive gas has been generated, within the period of six months next preceding the passage of this act, and also in all mines where fire-damp shall be generated after the passage of this act, in sufficient quantities to be detected by the ordinary safety lamp, every working place without exception, and all road ways, shall be carefully examined immediately before each shift by competent person or persons appointed by the superintendent and mine foreman for that purpose. The person or persons making such examination shall have received a fire boss certificate of competency required by this act, and shall use no light other than that enclosed in a safety lamp while making said examination. In all cases said examination shall be begun within three hours prior to the appointed time of each shift commencing to work, and it shall be the duty of the said fire boss at each examination to leave at the face and side of every place so examined evidence of his presence. And he shall also at each examination inspect the entrance or entrances to the worked out or abandoned parts which are adjacent to the roadways and working places of the mine where fire-damp is likely to accumulate, and where danger is found to exist he shall place a danger signal at the entrances to such places, which shall be sufficient warning for persons not to enter said place.

Section 3. In any place that is being driven towards, or in dangerous proximity to, an abandoned mine or part of a mine suspected of containing inflammable gases, or which may be inundated with water, bore holes shall be kept not less than twelve feet in advance of the face and on the sides of such working places, said side holes to be drilled diagonally not more than eight feet apart, and any place driven to tap water or gas shall not be more than ten feet wide, and no water or gas from an abandoned mine, or part of a mine, and no bore holes from the surface, shall be tapped until the employes, except those engaged at such work, are out of the mine, and such work to be done under the immediate instruction of the mine foreman.

Section 4. The fire boss shall at each entrance to the mine, or in the main intake air-way near to the mine entrance, prepare a permanent station with the proper danger signal designated by suitable letters and colors placed thereon, and it shall not be lawful for any person or persons, except the mine officials in cases of necessity, and such other persons as may be designated by them, to pass beyond said danger station until the mine has been examined by the fire boss as aforesaid, and the same, or certain parts thereof, reported by him to be safe, and in all mines where operations are temporarily suspended, the superintendent and mine foreman shall see that a danger signal be placed at the mine entrance, or entrances, which shall be a sufficient warning to persons not to enter the mine, and if the ordinary

circulation of air through the mine be stopped, each entrance to said mine shall be securely fenced off and a danger signal shall be displayed upon said fence, and any workman or other person (except those persons hereinbefore provided for) passing by any danger signal into the mine before it has been examined, and reported to be safe as aforesaid, shall be deemed guilty of a misdemeanor, and it shall be the duty of the fire boss, mine foreman, superintendent, or any employe, to forthwith notify the mine Inspector, who shall enter proceedings against such person or persons as provided for in section two of article twenty-one of this act.

Section 5. All entries, tunnels, air ways, traveling ways, and other working places of a mine where explosive gas is being generated in such quantities as can be detected by the ordinary safety lamp, and pillar workings, and other working places in any mine where a sudden inflow of said explosive gas is likely to be encountered (by reason of the subsidence of the overlying strata, or from any other causes), shall be worked exclusively with locked safety lamps. The use of open lights is also prohibited in all working places, roadways, or other parts of the mine through which fire-damp might be carried in the air current in dangerous quantities. In all mines, or parts of mines, worked with locked safety lamps the use of electric wires and electric currents is positively prohibited, unless said wires and machinery, and all other mechanical devices attached thereto and connected therewith, are constructed and protected in such a manner as to secure freedom from the emission of sparks or flame therefrom into the atmosphere of the mine.

Section 6. After January first, one thousand eight hundred and ninety-four, the use of the common Davy safety lamp for general work in any bituminous coal mine is hereby prohibited, neither shall the Clanny lamp be so used unless its gauze is thoroughly protected by a metallic shield, but this act does not prohibit the use of the Davy and Clanny lamps by the mine officials for the purpose of examining the workings for gas.

Section 7. All safety lamps used for examining mines, or for working therein, shall be the property of the operator, and shall be in the care of the mine foreman, his assistant, or fire boss, or other competent person, who shall clean, fill, trim, examine and deliver the same locked in a safe condition to the men when entering the mine before each shift, and shall receive the same from the men at the end of each shift, for which service a charge not exceeding cost of labor and material may be made by the operator. A sufficient number of safety lamps, but not less than twenty-five per centum of those in use, shall be kept at each mine where gas has at any time been generated in sufficient quantities to be detected by an ordinary safety lamp for use in case of emergency. It shall be the duty of every

person who knows his safety lamp to be injured or defective, to promptly report such fact to the party authorized herein to receive and care for said lamps, and it shall be the duty of that party to promptly report such fact to the mine foreman.

Article VI.

Mine Foreman and His Duties.

Section 1. In order to better secure the proper ventilation of the bituminous coal mines, and promote the health and safety of the persons employed therein, the operator or superintendent shall employ a competent and practical inside overseer for each and every mine, to be called mine foreman. Said mine foreman shall have passed an examination and obtained a certificate of competency, or of service, as required by this act, and shall be a citizen of the United States and an experienced coal miner; and said mine foreman shall devote the whole of his time to his duties at the mine when in operation, or in case of his necessary absence an assistant, chosen by him, and shall keep a careful watch over the ventilating apparatus, and the air ways, traveling ways, pump and pump timbers and drainage, and shall often instruct, and, as far as possible, see that as the miners advance their excavations all dangerous coal, slate and rock overhead are taken down or carefully secured against falling therein, or on the traveling and hauling ways, and that sufficient props, caps and timbers of suitable size are sent into the mine when required, and all props shall be cut square at both ends, and as near as practicable to a proper length for the places where they are to be used, and such props, caps and timbers shall be delivered in the working places of the mine.

Section 2. Every workman in want of props or timbers and cap pieces shall notify the mine foreman or his assistant of the fact at least one day in advance, giving the length and number of props or timbers and cap pieces required, but in cases of emergency the timbers may be ordered immediately upon the discovery of any danger. (The place and manner of leaving the orders for the timber shall be designated and specified in the rules of the mine.) And if from any cause the timbers cannot be supplied when required, he shall instruct the persons to vacate all said working places until supplied with the timber needed, and shall see that all water be drained or hauled out of all working places before the miner enters, and as far as practicable kept dry while the miner is at work.

Section 3. It shall be the duty of the mine foreman to see that proper cut-throughs are made in all the rooms, pillars at such distances apart as in the judgment of the mine Inspector may be deemed requisite, not more than thirty-five nor less than sixteen yards each for the purpose of ventilation, and the ventilation shall be conducted

through said cut-through into rooms by means of check doors made of canvas or other suitable material placed on the entries, or in other suitable places, and he shall not permit any room to be opened in advance of the ventilating current. Should the mine Inspector discover any room, entry, air way or other working places being driven in advance of the air current contrary to the requirements of this section, he shall order the workmen working in such places to cease work at once until the law is complied with.

Section 4. In all hauling roads on which hauling is done by animal power, and whereon men have to pass to and from their work, holes for shelter, which shall be kept clear of obstruction, shall be made at least every thirty yards and be kept whitewashed, but shelter holes shall not be required in entries from which rooms are driven at regular intervals not exceeding fifty feet; where there is a space four feet between the wagon and rib it shall be deemed sufficient for shelter. On all hauling roads whereon hauling is done by machinery, and all gravity or inclined planes inside mines upon which the persons employed in the mine must travel on foot to and from their work, such shelter holes shall be cut not less than two feet six inches into the strata, and not more than fifteen yards apart, unless there is a space of at least six feet from the side of the car to the side of the roadway, which space shall be deemed sufficient for shelter: Provided, That this requirement shall not apply to any parts of mines which parts were opened prior to the passage of this act if deemed impracticable by the mine Inspector.

Section 5. The mine foreman shall measure the air current at least once a week at the inlet and outlet, and at or near the faces of the entries, and shall keep a record of such measurements. An anemometer shall be provided for this purpose by the operator of the mine. It shall be the further duty of the mine foreman to require the workmen to use locked safety lamps when and where required by this act.

Section 6. The mine foreman shall give prompt attention to the removal of all dangers reported to him by the fire boss, or any other person working in the mine, and in mines where a fire boss is not employed, the said mine foreman, or his assistant, shall visit and examine every working place therein at least once every alternate day while the miners of such place are or should be at work, and shall direct that each and every working place be properly secured by props or timbers, and that no person shall be directed or permitted to work in an unsafe place unless it be for the purpose of making it safe: Provided, That if the owner or operator of any mine employing a fire boss shall require the mine foreman to examine every working place every alternate day, then it shall be the duty of the mine foreman to do so.

Section 7. When the mine foreman is unable personally to carry out all the requirements of this act as pertaining to his duties, he shall employ a competent person or persons, not objectionable to the operator, to act as his assistant or assistants, who shall act under his instructions, and in all mines where fire-damp is generated the said assistant or assistants shall posses a certificate of competency a mine foreman or fire boss.

Section 8. A suitable record book, with printed head lines, prepared by and approved by the mine Inspector, the same to be provided at the expense of the Commonwealth, shall be kept at each mine generating explosive gases, and immediately after each examination of the mine, made by the fire boss or fire bosses, a record of the same shall be entered in said book, signed by the person or persons making such examination, which shall clearly state the nature and location of any danger which he or they may have discovered, and the fire boss or fire bosses shall immediately report such danger and the location of the same to the mine foreman, whose duty it shall be to remove the danger, or cause the same to be done forthwith, as far as practicable and the mine foreman shall also each day countersign all reports entered by the fire boss or fire bosses. At all mines the mine foreman shall enter in a book provided as above by the mine Inspector a report of the condition of the mine, signed by himself, which shall clearly state any danger that may have come under his observation during the day, and shall also state whether he has a proper supply of material on hand for the safe working of the mine, and whether all requirements of the law are strictly complied with. He shall once each week enter, or cause to be entered, plainly with ink, in said book, a true record of all air measurements required by this act, and such book shall at all times be kept at the mine office for examination by the mine Inspector of the district, and any other person working in the mines.

Article VII.

Timbers and Other Mine Supplies, Et Cetera.

Section 1. It shall be the duty of the superintendent on behalf and at the expense of the operator to keep on hand at the mines at all times a full supply of all materials and supplies required to preserve the health and safety of the employes as ordered by the mine foreman and required by this act. He shall at least once a week examine and countersign—(which countersignature of the superintendent shall be held under this act to have no further bearing than the evidence of the fact that the mine superintendent has read the matter entered on the book)—all reports entered in the mine record book, and if he finds that the law is being violated in any particular he

shall order the mine foreman to comply with its provisions forth with. If from any cause he cannot procure the necessary supplies or materials, as aforesaid, he shall notify the mine foreman whose duty it shall be to withdraw the men from the mine or part of mine until such supplies or material are received.

Section 2. The superintendent of the mine shall not obstruct the mine foreman, or other officials, in their fulfillment of any of the duties required by this act. At mines where superintendents are not employed the duties that are herein prescribed for the superintendent shall devolve upon the mine foreman.

Article VIII.

Steam Boilers, Stables, Regulations for the Use of Oil, Powder, Et Cetera.

Section 1. After the passage of this act it shall be unlawful to place a main or principal ventilating fan inside of any bituminous coal mine wherein explosive gas has been detected or in which the air current is contaminated with coal dust. No stationary steam boiler shall be placed in any bituminous coal mine unless said steam boiler be placed within fifty feet from the bottom of an up-cast shaft, which shaft shall not be less than twenty-five square feet in area, and after May thirtieth, one thousand eight hundred and ninety-five, no stationery steam boiler shall be permitted to remain in any bituminous coal mine only as aforesaid.

Section 2. It shall not be lawful after the passage of this act to provide any horse or mule stables inside of bituminous coal mines, unless said stables are excavated in the solid strata or coal seams, and no wood or other combustible material shall be used excessively in the construction of said stables, unless surrounded by or incased by some incombustible material. The air current used for ventilating said stable shall not be intermixed with the air current used for ventilating the working parts of the mine, but shall be conveyed directly to the return air current, and no open light shall be permitted to be used in any stable in any mine.

Section 3. No hay or straw shall be taken into any mine unless pressed and made up into compact bales, and all hay or straw taken into the mines, as aforesaid, shall be stored in a storehouse excavated in the solid strata or built in masonry for that purpose. After January first, one thousand eight hundred and ninety-four, no horse or mule stable, or storehouse, only as aforesaid, shall be permitted in any bituminous coal mine.

Section 4. No explosive oil shall be used or taken into bituminous coal mines for lighting purposes, and oil shall not be stored or taken into the mines in quantities exceeding five gallons. The oiling or greasing of cars inside of the mines is strictly forbidden, unless the

place where said oil or grease is used is thoroughly cleaned at least once every day to prevent the accumulation of waste oil or grease on the roads or in the drains at that point. Not more than one barrel of lubricating oil shall be permitted in the mine at any one time. Only a pure animal or pure cotton-seed oil, or oils that shall be as free from smoke as a pure animal or pure cotton-seed oil, shall be used for illuminating purposes in any bituminous mine. Any person found knowingly using explosive or impure oil, contrary to this section, shall be prosecuted as provided for in section two of article twenty-one of this act.

Section 5. No powder or high explosive shall be stored in any mine, and no more of either article shall be taken into the mine at any one time than is required in any one shift, unless the quantity be less than five pounds, and in all working places where locked safety lamps are used, blasting shall only be done by the consent and in the presence of the mine foreman, his assistant or fire boss, or any competent party designated by the mine foreman for that purpose; whenever the mine Inspector discovers that the air in any mine is becoming vitiated by the unnecessary blasting of the coal, he shall have the power to regulate the use of the same, and to designate at what hour of the day blasting may be permitted.

Article IX.

Opening for Drainage, Et Cetera, on Other Lands.

Section 1. If any person, firm or corporation, is or shall hereafter be seized in his or their own right of coal lands, or shall hold such lands under lease, and shall have opened or shall desire to open a coal mine on said land, and it shall not be practicable to drain or ventilate such mines, or to comply with the requirements of this act as to ways of ingress and egress, or traveling ways by means of openings on lands owned or held under lease by him, them or it, and the same can be done by means of openings on adjacent lands, he, they or it may apply by petition to the court of quarter sessions of the proper county, aften ten days' notice to the owner or owners, their agents or attorney, setting forth the facts under oath or affirmation, particularly describing the place or places where such opening or openings can be made, and the pillars of coal or other material necessary for the support of such passage-way and such right of way to any public road as may be needed in connection with such opening, and that he or they cannot agree with the owner or owners of the land as to the amount to be paid for the privilege of making such opening or openings, whereupon the said court shall appoint three disinterested and competent citizens of the county to view the ground designated, and lay out from the point or points mentioned in such petition, a passage or passages not more than eighty feet area by either

drift, shaft or slope, or by a combination of any of said methods by any practicable and convenient route to the coal of such person, firm or corporation, preferring in all cases an opening through the coal strata where the same is practicable. The said viewers shall at the same time assess the damages to be paid by the petitioner or petitioners to the owner or owners of such lands for the coal and other valuable material to be removed in the excavation and construction of said passage; also for such coal or other valuble material necessary to support the said passage, as well as for a right of way not exceeding fifteen feet in width from any such opening to any public road to enable persons to gain entrance to the mine through such opening, or to provide therefrom upon the surface a water course of suitable dimensions to a natural water stream to enable the operator to discharge the water from said mine, if such right of way shall be desired by the petitioner or petitioners, which damages shall be fully paid before such opening is made. The proceedings shall be recorded in the road docket of the proper county, and the pay of viewers shall be the same as in road cases; if exceptions be filed they shall be disposed of by the court as speedily as possible, and both parties to have the right to take depositions as in road cases. If, however, the petitioner desires to make such openings or roads or water-way before the final disposition of such exceptions, he shall have the right to do so by giving bond to be approved by the court, securing the damages as provided by law in the case of lateral railroads.

Section 2. It shall be compulsory upon the part of the mine owner or operator to exercise the powers granted by the provisions of the last preceding section for the procuring of a right of way on the surface from the opening of a coal mine to a public road or public roads upon the request, in writing, of fifty miners employed in the mine or mines of such owner or operator: Provided, however, That with such request satisfactory security be deposited with the mine owner or operator by said petitioners, being coal miners, to fully and sufficiently pay all costs, damages and expenses caused by such proceedings and in paying for such right of way.

Section 3. In any mine or mines, or parts thereof, wherein water may have been allowed to accumulate in large and dangerous quantities, putting in danger the adjoining or adjacent mines and the lives of the miners working therein, and when such can be tapped and set free and flow by its own gravity to any point of drainage, it shall be lawful for any operator or person having mines so endangered, with the approval of the Inspector of the district, to proceed and remove the said danger by driving a drift or drifts protected by bore holes, as provided by this act, and in removing said danger it shall be lawful to drive across property lines if needful. And it shall be unlawful for any person to dam, or in any way ob-

struct, the flow of any water from said mine, or parts thereof, when so set free on any part of its passage to point of drainage.

Section 4. No operator shall be permitted to mine coal within fifty feet of any abandoned mine containing a dangerous accumulation of water until said danger has been removed by driving a passage way so as to tap and drain off said water as provided for in this act: Provided, That the thickness of the barrier pillars shall be greater and shall be in proportion of one foot of pillar thickness to each one and one-quarter foot of waterhead, if in the judgment of the engineer of the property, and that of the district mine Inspector, it is necessary for the safety of the persons working in the mine.

Section 5. All operators of bituminous coal mines shall keep posted in a conspicuous place at their mines the general and special rules embodied in, and made part of this act defining the duties of all persons employed in or about said mine, which said rules shall be printed in the English language, and shall also be printed in such other language or languages as are used by any ten persons working therein. It shall be the duty of the mine Inspector to furnish to the operator printed copies of such rules and such translations thereof as are required by this section, and to certify their correctness over his signature. The cost thereof shall be borne by the State.

Article X.

Inspectors, Examining Boards, Et Cetera.

Section 1. The board of examiners appointed to examine candidates for the office of mine Inspector, under the provisions of the act to which is a supplement, shall exercise all the powers granted, and perform all the duties required by this supplementary act, and at the expiration of their term of office, and every four years thereafter, the Governor shall appoint, as hereinafter provided, during the month of January two mining engineers of good repute, and three other persons who shall have passed successful examinations qualifying them to act as mine Inspectors or mine foremen, in mines generating fire-damp, who shall be citizens of this Commonwealth and shall have attained the age of thirty years, and shall have had at least five years of practical experience in the bituminous mines of Pennsylvania, and who shall not be serving at that time in any official capacity at mines, which five persons shall constitute a board of examiners whose duty it shall be to inquire into the character and qualification of candidates for the office of Inspector of mines under the provisions of this act.

Section 2. The examining board so constituted shall meet on the first Tuesday of March following their appointment, in the city of Pittsburg, to examine applicants for the office of mine Inspector:

Provided, however, The examining board shall meet two weeks previous to the aforesaid time for the purpose of preparing questions, et cetera, and when called together by the Governor on extra occasions at such time and place as he may designate, and after being duly organized, and having taken and subscribed, before any officer authorized to administer the same, the following oath, namely. "We the undersigned do solemnly swear (or affirm) that we will perform the duties of examiners of applicants for the appointment as inspectors of bituminous coal mines to the best of our abilities, and that in recommending or rejecting said applicants we will be governed by the evidence of the qualifications to fill the position under the law creating the same, and not by any consideration of political or personal favor, and that we will certify all whom we may find qualified according to the true intent and meaning of the act, and none others."

Section 3. The general examination shall be in writing, and the manuscript and other papers of all applicants, together with the tally sheets and the solution of each question as given by the examining board, shall be filed with the Secretary of Internal Affairs as public documents, but each applicant shall undergo an oral examination pertaining to explosive gases and safety lamps, and the examining board shall certify to the Governor the names of all such applicants which they shall find competent to fill this office under the the provisions of this act, which names, with the certificates and their percentages and the oaths of the examiners, shall be mailed to the Secretary of the Commonwealth, and be filed in his office. No person shall be certified as competent whose percentage shall be less than ninety per centum, and such certificate shall be valid only when signed by four of the members of the examining board.

Section 4. The qualifications of candidates for said office of Inspector of mines, to be inquired into and certified by said examiners, shall be as follows, namely: They shall be citizens of Pennsylvania, of temperate habits, of good repute as men of personal integrity, and shall have atttained the age of thirty years, and shall have had at least five years of practical experience in working of, or in the workings of the bituminous mines of Pennsylvania immediately preceding their examination, and shall have had practical experience with fire-damp inside the mines of this country, and upon examination shall give evidence of such theoretical, as well as practical knowledge and general intelligence respecting mines and mining, and the working and ventilation thereof, and all noxious mine gases, as will satisfy the examiners of their capability and fitness for the duties imposed upon Inspectors of mines by the provisions of this act. And the examining board shall immediately after the examination furnish to each person who came before it to be examined, a

copy of all questions, whether oral or written, which were given at the examination on printed slips of paper, and to be marked solved right, imperfect or wrong, as the case may be, together with a certificate of competency to each candidate who shall have made at least ninety per centum.

Section 5. The board of examiners may also at their meeting, or when at any time called by the Governor together for an extra meeting, divide the bituminous coal regions of the State into inspection districts, no district to contain less than sixty nor more than eighty mines, and as nearly as possible equalizing the labor to be performed by each Inspector, and at any subsequent calling of the board of examiners, this division may be revised as experience may prove to be advisable.

Section 6. The board of examiners shall each receive ten dollars per day for each day actually employed, and all necessary expenses to be paid out of the State treasury. Upon the filing of the certificate of the examining board in the office of the Secretary of the Commonwealth, the Governor shall, from the names so certified, commission one person to be Inspector of mines for each district as fixed by the examiners in pursuance of this supplementary act, whose commission shall be for a full term of four years, from the fifteenth day of May following: *Always provided, however*, The highest candidate or candidates in percentage shall have priority to be commissioned for a full term or unexpired term before those candidates of lower percentage, and in case of a tie in percentage, the oldest candidate shall be commissioned.

Section 7. As often as vacancies occur in said offices of Inspectors of mines, the Governor shall commission for the unexpired term from the names on file the highest in percentage in the office of the Secretary of the Commonwealth, until the number shall be exhausted, and whenever this may occur the Governor shall cause the aforesaid board of examiners to meet, and they shall examine persons who may present themselves for the vacant office of mine Inspector as herein provided, and the board of examiners shall certify to the Governor all persons who shall have made ninety per centum in said examination, one of whom to be commissioned by him according to the provisions of this act, for the office of mine Inspector for the unexpired term, and any vacancy that may occur in the examining board shall be filled by the Governor of this Commonwealth.

Section 8. Each Inspector of mines shall receive for his services an annual salary of three thousand dollars and actual traveling expenses, to be paid quarterly by the State Treasurer upon warrant of the Auditor General, and each mine Inspector shall keep an office in the district for which he is commissioned, and he shall be permitted to keep said office at his place of residence: Provided, A

suitable apartment or room be set off for that purpose. Each mine Inspector is hereby authorized to procure such instruments, chemical tests and stationery, and to incur such expenses of communication from time to time as may be necessary to the proper discharge of his duties under this act at the cost of the State, which shall be paid by the State Treasurer upon accounts duly certified by him and audited by the proper department of the State.

Section 9. All instruments, plans, books, memoranda, notes and other material pertaining to the office shall be the property of the State, and shall be delivered to their successors in office. In addition to the expenses now allowed by law to the mine Inspectors in enforcing the several provisions of this act, they shall be allowed all necessary expenses by them incurred in enforcing the several provisions of said law in the respective courts of this Commonwealth, the same to be paid by the State Treasurer on warrants drawn by the Auditor General; after auditing the same, all such accounts presented by the mine Inspector to the Auditor General shall be itemized and first approved by the court before which the proceedings were instituted.

Section 10. Each mine Inspector of bituminous coal mines shall before entering upon the discharge of his duties, give bond in the sum of five thousand dollars, with sureties to be approved by the president judge of the district in which he resides, conditional for the faithful discharge of his duties and take oath or affirmation to discharge his duties impartially and with fidelity, to the best of his knowledge and ability. But no person who shall act as manager or agent of any coal mine, or as a mining engineer, or is interested in operating any coal mine, shall at the same time act as mine Inspector of coal mines under this act.

Section 11. Each Inspector of bituminous coal mines shall devote the whole of his time to the duties of his office. It shall be his duty to examine each mine in his district as often as possible, but a longer period of time than three months shall not elapse between said examination to see that all the provisions of this act are observed and strictly carried out, and he shall make a record of all examinations of mines showing the condition in which he finds them, especially with reference to ventilation and drainage, the number of persons employed in each mine, the extent to which the law is obeyed and progress made in the improvement of mines, the number of serious accidents and the nature thereof, the number of deaths resulting from injuries received in or about the mines, with the cause of such accident or death, which record completed to the thirty-first day of December of each and ever year, shall, on or before the fifteenth day of March following, be filed in the office of the

Secretary of Internal Affairs, to be by him recorded and included in the annual report of his department.

Section 12. It shall be the duty of the mine Inspector on examination of any mine to make out a written, or partly written and partly printed, report of the condition in which he finds such mine, and post the same in the office of the mine, or other conspicuous place. The said report shall give the date of the visit, the number of cubic feet of air in circulation, and where measured, and that he has measured the air at the cut through one or more rooms in each heading or entry, and such other information as he shall deem necessary, and the said report shall remain posted in the office or conspicuous place for one year, and may be examined by any person employed in or about the mine.

Section 13. In case the Inspector becomes incapacitated to perform the duties of his office, or receives a leave of absence from the same from the Governor, it shall be the duty of the judge of the court of common pleas of his district, to appoint upon said mine Inspector's application, or that of five miners or five operators of said Inspector's district, some competent person recommended by the board of examiners to fill the office of Inspector until the said Inspector shall be able to resume the duties of his office, and the person so appointed shall be paid in the same manner as is hereinbefore provided for the Inspector of mines.

Article XI.

Inspectors' Powers, Et Cetera.

Section 1. That the mine Inspectors may be enabled to perform the duties herein imposed upon them they shall have the right at all times to enter any bituminous coal mine to make examinations or obtain information; and upon the discovery of any violation of this act, they shall institute proceedings against the person or persons at fault under the provisions of section two of article twenty-one of this act. In case, however, where in the judgment of the mine inspector of the district, any mine or part of mine is in such dangerous condition as to jeopardise life or health, he shall at once notify two of the mine Inspectors of the other districts, whereupon they shall at once proceed to the mine where the danger exists and examine into the matter, and if after full investigation thereof they shall be agreed in the opinion that there is immediate danger, they shall instruct the superintendent of the mine in writing to remove such condition forthwith, and in case said superintendent shall fail to do so then they shall apply in the name of the Commonwealth to the court of common pleas of the county, or in case the court shall not be in session to a judge of the said court in chambers in which the mine may be located, for an injunction to suspend all work in and

about said mine, whereupon said court or judge shall at once proceed to hear, and determine speedily the same, and if the cause appear to be sufficient, after hearing the parties and their evidences as in like cases, shall issue its writ to restrain the working of said mine until all cause of danger is removed, and the cost of said proceedings shall be borne by the owner, lessee or agent of the mine: Provided, That if said court shall find the cause not sufficient, then the case shall be dismissed, and the costs shall be borne by the county wherein said mine is located.

Article XII.

Inquests, Et Cetera.

Section 1. Whenever, by reason of any explosion or other accidents, in any bituminous coal mine or the machinery connected therewith, loss of life or serious personal injury shall occur, it shall be the duty of the person having charge of such mine to give notice thereof forthwith to the mine Inspector of the district, and also to the coroner of the county, if any person is killed.

Section 2. If the coroner shall determine to hold an inquest, he shall notify the mine Inspector of the district of time and place of holding the same, who shall offer such testimony as he may deem necessary to thoroughly inform the said inquest of the cause of the death, and the said mine Inspector shall have authority at any time to appear before such coroner and jury and question or cross-question any witness, and in choosing a jury for the purpose of holding such inquest, it shall be the duty of the coroner to empanel a jury no one of which shall be directly or indirectly interested.

Section 3. It shall be the duty of the mine Inspector upon being notified of any fatal accident as herein provided to immediately repair to the scene of the accident, and make such suggestion as may appear necessary to secure the safety of any persons who may be endangered, and if the results of the accident do not require an investigation by the coroner, the said mine Inspector shall proceed to investigate and ascertain the cause of the accident, and make a record thereof which he shall file as provided for, and to enable him to make the investigation, he shall have power to compel the attendance of persons to testify, and to administer oaths or affirmations, and if it is found upon investigation that the accident is due to the violation of any provisions of this act by any person other than those who may be deceased, the mine Inspector may institute proceedings against such person or persons as provided for in section two of article twenty-one of this act.

Section 4. The cost of such investigation shall be paid by the county in which the accident occurred in the same manner as costs of inquests held by the coroners or justices of the peace are paid.

Article XIII.

Neglect or Incompetence of Inspectors.

Section 1. The court of common pleas in any county or district, upon a petition signed by not less than fifteen reputable citizens, who shall be miners or operators of mines, and with the affidavit of one or more of said petitioners attached setting forth that any Inspector of mines neglects his duties, or is incompetent, or that he is guilty of a malfeasance in office, shall issue a citation in the name of the Commonwealth to the said mine Inspector to appear on not less than fifteen days' notice upon a day fixed before said court, at which time the court shall proceed to inquire into and investigate the allegations of the petitioners.

Section 2. If the court find that the said mine Inspector is neglectful of his duties, or incompetent to perform the duties of his office, or that he is guilty of malfeasance in office, the court shall certify the same to the Governor who shall declare the office of said mine Inspector vacant, and proceed in compliance with the provisions of this act to supply the vacancy, and the costs of said investigation shall, if the charges are sustained, be imposed upon the mine Inspector, but if the charges are not sustained, they shall be imposed upon the petitioners.

Article XIV.

Discretionary Powers of the Inspectors, Arbitration, Et Cetera.

Section 1. The mine Inspectors shall exercise a sound discretion in the enforcement of the provisions of this act, and if the operator, owner, miners, superintendents, mine foreman or other persons employed in or about the mine as aforesaid shall not be satisfied with any decision the mine Inspector may arrive at in the discharge of his duties under this act, which said decision shall be in writing, signed by the mine Inspector, the said owner, operator, superintendent, mine foreman or other person specified above shall either promptly comply therewith, or within seven days from date thereof appeal from such decision to the court of quarter sessions of the county wherein the mine is located, and said court shall speedily determine the question involved in said decision, and appeal and the decision of said court shall be binding and conclusive.

Section 2. The court, or the judge of said court in chambers, may in its discretion, appoint three practical, reputable, competent and disinterested persons whose duty it shall be under instructions of the said court to forthwith examine such mine, or other cause of complaint, and report under oath the facts as they exist or may have been, together with their opinions thereon within thirty days after

their appointment. The report of said board shall become absolute unless exceptions thereto shall be filed within ten days after the notice of the filing thereof by the owner, operator, mine superintendent, mine foreman, mine Inspector and other persons as aforesaid, and if exceptions are filed, the court shall at once hear and determine the same and the decision shall be final and conclusive.

Section 3. If the court shall finally sustain the decision of the mine Inspector, then the appellant shall pay all costs of such proceedings, and if the court shall not sustain the decision of the mine Inspector, then such costs shall be paid by the county: Provided, That no appeal from any decision made by any mine Inspector which can be immediately complied with, shall work as a supersedeas to such decision during the pendency of such appeal, but all decisions shall be in full force until reversed or modified by the proper court.

Article XV.

Examinations of Mine Foremen and Fire Bosses.

Section 1. On the petition of the mine Inspector the court of common pleas in any county in said district shall appoint an examining board of three persons, consisting of a mine Inspector, a miner and an operator or superintendent, which said miner shall have received a certificate of competency as mine foreman in mines generating explosive gases, and the members of said examining boards shall be citizens of this Commonwealth, and the persons so appointed shall, after being duly organized, take and subscribe before an officer authorized to administer the same, the following oath, namely: "We, the undersigned, do solemnly swear (or affirm) that we will perform the duties of examiners of applicants for the position of mine foremen and fire bosses of bituminous coal mines to the best of our abilities, and that in certifying or rejecting said applicants we will be governed by the evidence of the qualifications to fill the position under the law creating the same, and not by any consideration of personal favor; that we will certify all whom we may find qualified and none others."

Section 2. The examining board shall examine any person applying thereto as to his competency and qualifications to discharge the duties of mine foreman or fire boss.

Applicants for mine foreman or fire boss certificates shall be at least twenty-three years of age, and shall have had at least five years practical experience after fifteen years of age as miners, superintendent at or inside of the bituminous mines of Pennsylvania and shall be citizens of this Commonwealth, and men of good moral character, and of known temperate habits.

The said board shall be empowered to grant certificates of competency of two grades, namely: certificates of first grade to persons

who have had experience in mines generating explosive gases, and who shall have the necessary qualifications to fulfill the duties of mine foreman in such mines, and certificates of second grade to persons who give satisfactory evidence of their ability to act as mine foreman in mines not generating explosive gases.

Section 3. The said board of examiners shall meet at the call of the mine Inspector, and shall grant certificates to all persons whose examination shall disclose their fitness for the duties of mine foreman as above classified, or fire boss, and such certificates shall be sufficient evidence of the holder's competency for the duties of said position so far as relates to the purposes of this act: Provided, That all persons holding certificates of competency granted under the provisions of the act to which this is a supplement, shall continue to act under this act: And provided further, That any person acting as mine foreman upon a certificate of service under the act to which this is a supplement, may continue to act in the same capacity at any mine where the general conditions affecting the health and safety of the persons employed do not differ materially from those at the mine in which he was acting when said certificate was granted: Provided however, That if such a mine foreman leaves his present employer, and secures employment elsewhere, at any mine where in the judgment of the mine Inspector of the district the conditions affecting the health and safety of the persons employed, do differ materially from those at the mine at which he was employed when his certificate was granted, it shall then be the duty of the mine Inspector of the district in which he has secured employment to serve written protest against such mine foreman's employment to the operator of said mine.

Section 4. The examining board shall hold their office for a period of four years from the date of their appointment, and shall receive five dollars per day for each day necessarily employed, and mileage at the rate of three cents per mile for each mile necessarily traveled, and all other necessary expenses connected with the examination shall be paid by the Commonwealth. Each applicant before being examined shall pay the examining board the sum of one dollar, and one dollar additional for each certificate granted, which shall be for the use of the Commonwealth. The foregoing examination shall be held annually in each inspection district.

Article XVI.

Suspension of Certificates of Mine Foremen and Fire Bosses.

Section 1. No person shall act as fire boss in any bituminous coal mines unless granted a certificate of competency by any one of the several examining boards. All applicants applying to any of the ex-

amining boards for fire boss certificates, shall undergo an oral examination in the presence of explosive gas, and such certificate shall only be granted to men of good moral character and of known temperate habits, and it shall be unlawful for any operator or superintendent to employ any person as fire boss, who has not obtained such certificate of competency as required by this act.

Section 2. If the mine foreman or fire boss shall neglect his duties or has incapacitated himself by drunkenness, or has been incapacitated by any other cause, for the proper performance of said duties, and the same shall be brought to the knowledge of the operator or superintendent, it shall be the duty of such operator or superintendent to discharge such delinquent at once, and notify the Inspector of the district of such action, whereupon it shall be the duty of said Inspector to inform the court of common pleas of the county, who shall issue a citation in the name of the Commonwealth to the said operator, superintendent, mine foreman or fire boss, to appear, at not less than fifteen days' notice, upon a day fixed before said court, at which time the court shall proceed to inquire into and investigate the allegations. If the court finds that the allegations are true, it shall notify the examining board of such finding, and instruct the said board to withdraw the certificate of such delinquent during any period of time that said court may deem sufficient, and at the expiration of such time he shall be entitled to a re-examination.

Article XVII.

Employment of Boys and Females.

Section 1. No boy under the age of twelve years, or any woman or girl of any age, shall be employed, or permitted to be in the workings of any bituminous coal mine for the purpose of employment, or for any other purpose, and no boy under the age of sixteen shall be permitted to mine or load coal in any room, entry or other working place unless in company with a person over sixteen years of age. If the mine Inspector or mine foreman has reason to doubt the fact of any particular boy being as old as this act requires, for the service which said boy is performing at any mine, it shall be the duty of said mine Inspector or mine foreman to report the fact to the superintendent, giving the name of said boy, and the said superintendent shall at once discharge the said boy.

Article XVIII.

Stretchers.

Section 1. It shall be the duty of operators or superintendents to keep at the mouth of the drift, shaft, or slope, or at such place about the mine as shall be designated by the mine Inspector, a

stretcher properly constructed, and a woolen and a waterproof blanket in good condition for use in carrying away any person who may be injured at the mine: Provided, That where more than two hundred persons are employed two stretchers, and two woolen and two waterproof blankets shall be kept. And in mines generating fire-damp, a sufficient quantity of linseed or olive oil bandages, and linen shall be kept in store at the mines for use in emergencies, and bandages shall be kept at all mines.

Article XIX.

Annual Reports.

Section 1. On or before the twenty-fifth day of January in each year, the operator or superintendent of every bituminous coal mine, shall send to the mine Inspector of the district in which said mine is located, a correct report, specifying with respect to the year ending the thirty-first day of December preceding, the name of the operator and officers of the mine, and the quantity of coal mined. The report shall be in such form, and give such information regarding said mines as may be from time to time required and prescribed by the mine Inspector of the district. Blank forms for such reports shall be furnished by the Commonwealth.

Article XX.

RULES GENERAL AND SPECIAL.

Additional Duties of Mine Foreman.

Section 1. *Rule* 1. The mine foreman shall attend personally to his duties in the mine and carry out all the instructions set forth in this act, and see that the regulations prescribed for each class of workmen under his charge, are carried out in the strictest manner possible, and see that any deviations from, or infringements of, any of them are promptly adjusted.

Rule 2. He shall cause all stoppings along the airways to be properly built.

Rule 3. He shall see that the entries at such places where road grades necessitate sprags or brakes to be applied, or removed, shall have a clear level width of not less than two and one-half feet, between the side of car and the rib, to allow the driver to pass his trip safely and keep clear of the cars there.

Rule 4. He shall direct that all miners undermine the coal properly before blasting it, and that blasting shall be done at only such hours as he shall direct, and shall order the miners to set sprags under the coal, when necessary for safety, while undermining at distances not exceeding seven feet apart, and he shall not allow the improper drawing of pillars.

Rule 5. In mines where fire-damp is generated, when the furnace fire has been put out, it shall not be relighted except in his presence, or that of his assistant acting under his instructions.

Rule 6. In case of accident to a ventilating fan, or its machinery, or to the fan itself, whereby the ventilation of the mine would be seriously interrupted, it shall be his duty to order the men to immediately withdraw from the mine, and not allow their return to their work until the ventilation has been restored, and the mine has been thoroughly examined by him or his assistant, and reported to be safe.

Rule 7. He shall see that all dangerous places are properly fenced off, and proper danger signal boards so hung on such fencing, that they may be plainly seen; he shall also travel all air roads and examine all the accessible openings to old workings as often as is necessary to insure their safety.

Rule 8. He shall provide a book or sheet to be put in some convenient place, or places, upon which shall be made a place for the numbers used by the miners with space sufficient to each number, so that the miners can write plainly the quantity of props, their approximate length, and the number of caps and other timbers which they require, together with the date of the order. Said book or sheets shall be preserved for thirty days from their date.

Duties of Fire Boss.

Rule 9. He shall enter the mine before the men have entered it, and before proceeding to examine the same, he shall see that the air current is traveling in its proper course, and if all seems right he shall proceed to examine the workings.

Rule 10. He shall not allow any person, except those duly authorized, to enter or remain in any part of the mine through which a dangerous accumulation of gas is being passed in the ventilating current from any other part of the mine.

Rule 11. He shall frequently examine the edges and accessible parts of new falls and old gobs and air courses, and he shall report at once any violation of this act to the mine foreman.

Duties of Miners.

Rule 12. He shall examine his working place before beginning work, and take down all dangerous slate, or otherwise make it safe by properly timbering the same, before commencing to dig or load coal, and in mines where fire bosses are employed, he shall examine his place to see whether the fire boss has left the proper marks indicating his examination thereof, and he shall at all times be very careful to keep his working place in a safe condition during working hours.

Rule 13. Should he at any time find his place becoming dangerous either from gas, or roof, or from any unusual condition which may have arisen, he shall at once cease working, and inform the mine foreman, or his assistant, of such danger, and before leaving such place he shall place some plain warning at the entrance thereto to warn others from entering into the danger.

Rule 14. It shall be the duty of every miner to mine his coal properly, and to set sprags under the coal while undermining to secure it from falling, and after each blast he shall exercise great care in examining the roof and coal, and shall secure them safely before beginning work.

Rule 15. When places are liable to generate sudden volumes of fire-damp, or where locked safety lamps are used, no miner shall be allowed to fire shots except under the supervision and with the consent of the mine foreman, or his assistant, or other competent person designated by the mine foreman for that purpose.

Duties of Drivers.

Rule 16. When a driver has occasion to leave his trip, he must be careful to see that it is left, when possible, in a safe place, secure from cars or other dangers, or from endangering drivers of trip following.

Rule 17. The driver must take great care while taking his trips down grades to have the brakes or sprags so adjusted that he can keep the cars under control, and prevent them from running onto himself or others.

Rule 18. He shall not leave any cars standing where they may materially obstruct the ventilating current except in case of accident to the trip.

Duties of Trip Riders or Runners.

Rule 19. He shall exercise great care in seeing that all hitchings are safe for use, and see that all the trip is coupled before starting, and should he at any time see any material defect in the rope-link or chain, he shall immediately remedy such defect, or if unable to do so, he shall detain the trip and report the matter to the mine foreman.

Duties of Engineer.

Rule 20. It shall be the duty of the engineer to keep a careful watch over his engine, and all machinery under his charge, and see that the boilers are properly supplied with water, cleaned and in-

spected at proper intervals, and that the steam pressure does not exceed at any time the limit allowed by the superintendent.

Rule 21. He shall make himself acquainted with the signal codes provided for in this act.

Rule 22. He shall not allow any unauthorized person to enter the engine house, neither shall he allow any person to handle or run the engine without the permission of the superintendent.

Rule 23. When workmen are being raised or lowered he shall take special precautions to keep the engine well under control.

Rule 24. The locomotive engineer must keep a sharp look out ahead of his engine, and sound the whistle or alarm bell frequently when coming near the partings or landings; he must not exceed the speed allowed by the mine foreman or superintendent. He must not allow any person except his attendants to ride on the engine or on the full cars.

Duties of Firemen.

Rule 25. Every fireman and other person in charge of a boiler or boilers for the generation of steam, shall keep a careful watch of the same; he shall see that the steam pressure does not at any time exceed the limit allowed by the superintendent; he shall frequently try the safety-valve and shall not increase the weight on the same; he shall maintain a proper depth of water in each boiler, and if anything should happen to prevent this he shall report the same without delay to the superintendent, or other person designated by the superintendent, and take such other action as may, under the particular circumstances, be necessary for the protection of life and the preservation of property.

Duties of Fan Engineer.

Rule 26. The engineer in charge of any ventilating fan must keep it running at such speed as the mine foreman directs in writing. In case of accident to the boiler or fan machinery, not requiring the immediate withdrawal of the men from the mine by reason of serious interruption of the ventilation, he shall invariably notify the mine foreman. If ordinary repairs of the fan or machinery becomes necessary he must give timely notice to the mine foreman, and await his instructions before stopping it. He shall also examine, at the beginning of each shift, all the fan bearings, stays and other parts, and see that they are kept in proper working order. Should it become impossible to run the fan or necessary to stop it to prevent destruction, he shall then at once stop it and notify the mine foreman immediately and give immediate warning to persons in the mine.

Duties of Furnacemen.

Rule 27. The furnace man must attend to his duties with regularity, and in case he should be likely to be off work for any reason whatever, he must give timely notice to the mine foreman.

Rule 28. The furnace man must at all times keep a clear, brisk fire, and the fire must not be smothered with coal or slack during working hours, nor shall be allow ashes to accumulate excessively on or under the bars or in the approaches to the furnace, and ashes shall be cooled before being removed.

Rule 29. The furnace man must promptly obey the instructions of the mine foreman.

SHAFTS AND SLOPES.

Duties of Hookers-On.

Rule 30. The hookers-on at the bottom of any slope shall be very careful to see that the cars are properly coupled to a rope or chain, and that the safety-catch or other device is properly attached to the care before giving the signal to the engineer.

Duties of Cagers.

Rule 31. The cager at the bottom of any shaft shall not attempt to withdraw the car until the cage comes to rest, and when putting the full car on the cage he must be very careful to see that the springs or catches are properly adjusted so as to keep the car in its proper place before giving the signal to the engineer.

Rule 32. At every shaft or slope mine in which provision is made in this act for lowering and hoisting persons a headman and footman shall be designated by the superintendent or mine foreman, who shall be at their proper places from the time that persons begin to descend until all the persons who may be at the bottom of said shaft or slope when quitting work shall be hoisted; such headman and footman shall personally attend to the signals and see that the provisions of this act in respect to lowering or hoisting persons in shafts or slopes shall be complied with.

Rule 33. He shall not allow any tools to be placed on the same cage with men or boys, nor on either cage when persons are being hoisted out of the mine, or being lowered into the mine, except when for the purpose of repairing the shaft or machinery therein. The men shall place their tools in cars provided for that purpose, which car or cars shall be hoisted or lowered before and after the men have been hoisted or lowered. And he shall immediately inform the mine foreman of any violation of this rule.

Rule 34. He shall also see that no driver or other person ascends the shaft with any horse or mule unless the said horse or mule is secured in a suitable box or safely penned, and only the driver in charge of said horse or mule shall accompany it in any case.

Duties of Top Man.

Rule 35. The top man of any slope or incline plane shall be very careful to close the safety block or other device as soon as the cars have reached the landing, so as to prevent any loose or runaway cars from descending the slope or incline plane, and in no case shall such safety block or other device be withdrawn until the cars are coupled to the rope or chain and the proper signal given. He shall carefully inspect daily all the machinery in and about the check house, and the rope used for lowering the coal, and promptly report any defect discovered to the superintendent, and shall use great care in attaching securely the wagons or cars to the rope and carefully lower the same down the incline. He shall ring the alarm bell in case of accident, and when necessary immediately set free to act the drop logs or safety switch.

Rule 36. The top man of any shaft shall see that the springs or keeps for the cage to rest upon are kept in good working order, and when taking the full car off he must be careful that no coal or other material is allowed to fall down the shaft.

Rule 37. He shall be at his proper place from the time that persons begin to descend until all the persons who may be at the bottom of said shaft or slope when quitting work shall be hoisted. Such headman and footman shall personally attend to the signals, and see that the provisions of this act in respect to lowering and hoisting persons in shafts or slopes shall be complied with.

Rule 38. He shall not allow any tools to be placed on the same cage with men or boys, nor on either cage when persons are being lowered into the mine except when for the purpose of repairing the shaft or the machinery therein. The men shall place their tools in cars provided for that purpose, which car or cars shall be lowered before and after the men have been lowered.

Rule 39. He shall also see that no driver, or other person, descends the shaft with any horse or mule unless the said horse or mule is secured in a suitable box or safely penned, and only the driver in charge of said horse or mule shall accompany it in any case.

General Rules.

Rule 40. If any person shall receive any injury in or about the mine, and the same shall come within the knowledge of the mine foreman, and if he shall be of the opinion that the injured person requires medical or surgical treatment, he shall see that said injured person receives the same, and in case of inability of such injured person to pay therefor the same shall be borne by the county. The mine foreman shall report monthly to the mine Inspector of the district on blanks, furnished by said Inspector for that purpose, all accidents resulting in personal injury.

Rule 41. No unauthorized person shall enter the mine without permission from the superintendent or mine foreman.

Rule 42. No person in a state of intoxication shall be allowed to go into or loiter about the mine.

Rule 43. All employes shall inform the mine foreman or his assistant of the unsafe condition of any working place, hauling roads, or traveling ways or of damage to doors, brattices or stoppings, or of obstructions in the air passages when known to them.

Rule 44. No person shall be employed to blast coal, rock or slate unless the mine foreman is satisfied that such person is qualified by experience to perform the work with ordinary care.

Rule 45. The mine superintendent or mine foreman shall cause to be constructed safety blocks or some other device for the purpose of preventing cars from falling into the shaft, or running away on slopes or incline planes, and safety switches, drop logs or other device shall be used on all slopes and incline planes, and said safety blocks, safety switches or other device must be maintained in good working order.

Rule 46. Every workman employed in the mine shall examine his working place before commencing work, and after any stoppage of work during the shift he shall repeat such examination.

Rule 47. No person shall be allowed to travel on foot to or from his work on any incline plane, dilly or locomotive roads when other good roads are provided for that purpose.

Rule 48. Any employe or other person who shall wilfully deface, pull down or destroy any notice board, danger signal, general or special rules, or mining laws, shall be prosecuted as provided for in section two, article twenty-one of this act.

Rule 49 No powder or high explosive shall be taken into the mine in greater quantities than required for use in one shift, unless such quantity be less than five pounds, and all powder shall be carried into the mine in metallic canisters.

Rule 50. Powder in quantities exceeding twenty five pounds, or other explosives in quantities exceeding ten pounds, shall not be stored in any tipple or any weighing office, nor where workmen have business to visit, and no naked lights shall be used while weighing and giving out powder.

Rule 51. All persons, except those duly authorized, are forbidden to meddle or tamper in any way with any electric or signal wires in or about the mines.

Rule 52. No greater number of persons shall be hoisted or lowered at any one time in any shaft than is permitted by the mine Inspector, and whenever said number of persons shall arrive at the bottom of the shaft in which persons are regularly hoisted or lowered they shall be furnished with an empty cage and be hoisted, and in cases

of emergency a less number shall be promptly hoisted. Any person or persons crowding or pushing to get on or off the cages shall be deemed guilty of a misdemeanor.

Rule 53. Each workman when engaged shall have his attention directed to the general and special rules by the person employing him.

Rule 54. Workmen and all other persons are expressly forbidden to commit any nuisance, or throw into, deposit, or leave coals or dirt, stones or other rubbish in the air way or road so as to interfere with, pollute or hinder the air passing into and through the mine.

Rule 55. No one, except a person duly authorized by the mine foreman, shall have in his possession a key or other instrument for the purpose of unlocking any safety lamp in any mine where locked safety lamps are used.

Rule 56. Every abandoned slope, shaft air hole or drift shall be properly fenced around or across its entrance.

Rule 57. No safety lamps shall be entrusted to any person for use in mines until he has given satisfactory evidence to the mine foreman that he understands the proper use thereof and danger of tampering with the same.

Rule 58. No person shall ride upon or against any loaded car or cage in any shaft or slope in or about any bituminous coal mine; no person other than the trip runner shall be permitted to ride on empty trips on any slope, inclined plane or dilly road when the speed of the cars exceeds six miles per hour. The transportation of tools in and out of the mines shall be under the direction of the mine foreman.

Rule 59. No persons other than the drivers or trip runners shall be permitted to ride on the full cars.

Rule 60. In mines where coal dust has accumulated to a dangerous extent care shall be exercised to prevent said dust from floating in the atmosphere by sprinkling it with water, or otherwise, as far as practicable.

Rule 61 In cutting of clay veins, spars or faults in entries or other narrow workings going into the solid coal in mines where explosive gases are generated in dangerous quantities, a bore-hole shall be kept not less than three feet in advance of the face of the work or an advance of any shot hole drilled for a blast to be fired therein.

Rule 62. The engineer placed in charge of an engine whereby persons are hoisted out of or lowered into any mine, shall be a sober, competent person, and not less than twenty-one years of age.

Rule 63. When a workman is about to fire a blast he shall be careful to notify all persons who might be endangered thereby, and shall give sufficient alarm so that any person or persons approaching shall be warned of the danger.

Rule 64. In every shaft or slope where persons are hoisted or lowered by machinery, as provided by this act, a topman and cager shall be appointed by the superintendent or mine foreman.

Rule 65. Whenever a workman shall open a box containing powder or other explosives, or while in any manner handling the same, he shall first place his lamp not less than five feet from such explosive, and in such a position that the air current cannot convey sparks to it, and he shall not smoke while handling explosives.

Rule 66. An accumulation of gas in mines shall not be removed by brushing.

Rule 67. When gas is ignited by blast or otherwise, the person having charge of the place where the said gas is ignited shall immediately extinguish it, if possible, and if unable to do so, shall immediately notify the mine foreman or his assistant of the fact. Workmen must see that no gas blowers are left burning upon leaving their working places.

Rule 68. All ventilating fans used at mines shall be provided with recording instruments, by which the number of revolutions, or the effective ventilating pressure of the fan, shall be registered, and the registration, with its date for each and every day, shall be kept in the office of the mine for future reference for one year from its date.

Rule 69. Where the clothing or wearing apparel of employes becomes wet by reason of working in wet places in the mines, it shall be the duty of the operator or superintendent of each mine, at the request in writing of the mine Inspector, who shall make such request upon the petition of any five miners of any one mine in the district, working in the aforesaid wet places, to provide a suitable building, which shall be convenient to the principal entrances of such mine, for the use of the persons employed in wet places therein, for the purpose of washing themselves and changing their clothes when entering the mine and returning therefrom. The said building shall be maintained in good order, and be properly lighted and heated, and shall be provided with facilities for persons to wash. If any person or persons shall neglect or fail to comply with the provisions of this article, or maliciously injure or destroy, or cause to be injured or destroyed, the said building, or any part thereof, or any of the appliances or fittings used for supplying light and heat therein, or doing act tending to the injury or destruction thereof, he or they shall be deemed guilty of an offense against this act.

Rule 70. In all shafts and slopes where persons, coal or other materials are hoisted by machinery, the following code of signals shall be used:

One rap or whistle, to hoist coal or other material.

One rap or whistle, to stop cage or car when in motion.

Two raps or whistles, to lower cage or car.

Three raps or whistles, when persons are to be hoisted, and for engineer to signal back ready, when persons are to be hoisted, after which persons shall get on the cage or car, then one rap shall be given to hoist.

Four raps or whistles, to turn on steam to the pumps.

But a variation from the above code of signals may be used by permission of the mine Inspector: Provided, That in any such case such changed code shall be printed and posted.

Rule 71. No person or persons shall go into any old shaft or abandoned part of the mine, or into any other place which is not in actual course of working, without permission from the mine foreman, nor shall they travel to and from their work, except by the traveling way assigned for that purpose.

Rule 72. No steam pipes through which high pressure steam is conveyed, for the purpose of driving pumps or other machinery, shall be permitted on traveling or haulage ways, unless they are encased in asbestos, or some other suitable non-conducting material, or are so placed that the radiation of heat into the atmosphere of the mine will be prevented as far as possible.

Rule 73. Where a locomotive is used for the purpose of hauling coal out of a mine, the tunnel or tunnels through which the locomotive passes, shall be properly ventilated and kept free, as far as practicable, of noxious gases, and a ventilating apparatus shall be provided by the operator, to produce such ventilation when deemed necessary and practicable to do so by the mine Inspector.

Rule 74. No inexperienced person shall be employed to mine out pillars, unless in company with one or more experienced miners, and by their consent.

Article XXI.

Penalties.

Section 1. Any person or persons whomsoever, who shall intentionally or carelessly injure any shaft, safety lamp, instrument, air course or brattice, or obstruct, or throw open air ways, or take matches for any purpose, or pipes or other smokers' articles beyond any station inside of which locked safety lamps are used, or injure any part of the machinery, or open a door in the mine and not close it again immediately, or open any door which opening is forbidden, or disobey any order given in carrying out the provisions of this act, or do any other act whatsoever whereby the lives or the health of persons, or the security of the miners, or the machinery is endangered, shall be deemed guilty of a misdemeanor, and may be punished in a manner provided for in this article.

Section 2. The neglect or refusal to perform the duties required to be performed by any section of this act by the parties therein re-

quired to perform them, or the violation of any of the provisions or requirements hereof, shall be deemed a misdemeanor, and shall upon conviction thereof in the court of quarter sessions of the county wherein the misdemeanor was committed, be punishable by a fine not exceeding five hundred dollars, or imprisonment in the county jail for a period not exceeding six months, or both, at the discretion of the court.

Section 3. That for any injury to person or property occasioned by any violation of this act, or any failure to comply with its provisions by any owner, operator or superintendent of any coal mine or colliery, a right of action shall accrue to the party injured against said owner or operator for any direct damages he may have sustained thereby, and in case of loss of life by reason of such neglect or failure aforesaid, a right of action shall accrue to the widow and lineal heirs of the person whose life shall be lost, for like recovery of damages for the injury they shall have sustained.

Article XXII.

Definition.

Section 1. *Coal Mine.* In this act the term "coal mine" includes the shafts, slopes, adits, drifts or inclined planes connected with excavations penetrating coal stratum or strata, which excavations are ventilated by one general air current or divisions thereof, and connected by one general system of mine railroads, over which coal may be delivered to one or more common points outside the mine, when such is operated by one operator.

Excavations and Workings. The term "excavations and workings" includes all the excavated parts of a mine, those abandoned as well as the places actually being worked; also all underground workings and shafts, tunnels and other ways and openings, all such shafts, slopes, tunnels and other openings in the course of being sunk or driven, together with all roads, appliances, machinery and material connected with the same below the surface.

Shaft. The term "shaft" means a vertical opening through the strata, and which is or may be used for the purpose of ventilation or drainage, or for hoisting men or material, or both, in connection with the mining of coal.

Slope. The term "slope" means an incline way or opening used for the same purpose as a shaft.

Operator. The term "operator" means any firm, corporation or individual operating any coal mine or part thereof.

Superintendent. The term "superintendent" means the person who shall have, on behalf of the operator, immediate supervision of one or more mines.

Bituminous Mines. The term "bituminous" coal mine shall include all coal mines in the State not now included in the anthracite boundaries.

The provisions of this act shall not apply to any mine employing less than ten persons in any one period of twenty-four hours.

ARTICLE XXIII.

Section 1. That all acts or parts of acts inconsistent herewith be and the same are hereby repealed.

Approved—The 15th day of May, A. D. 1893.

ROBT. E. PATTISON.

AN ACT

Equalizing and fixing the compensation and mileage of the members of the several boards appointed under the provisions of the act approved June second, one thousand eight hundred and ninety-one, to examine candidates for appointment as Inspectors, foremen and fire bosses, respectively, in the anthracite coal mines, and providing for the employment and compensation and mileage of a clerk to each of said boards.

Section 1. Be it enacted, &c., That from and after the passage of this act the members of the several boards appointed under the provisions of the act approved June second, one thousand eight hundred and ninety-one, to examine candidates for appointment respectively as Inspectors and foremen of anthracite coal mines, shall receive in lieu of all compensation, mileage, expenses, emoluments or allowances heretofore paid them, as follows: Six dollars per day for each day during which the said members shall be actually in attendance on the sessions of the board, and mileage at the rate of five cents for each mile actually traveled going from the home of the member to the place of meeting of the board and returning from said place to his said home by the shortest practicable railway route: Provided, That mileage shall be paid but once for each continuous session of the board, and by a continuous session shall be meant a session during the course of which no adjournment for a longer period than forty-eight hours shall take place.

Section 2. Each of the boards enumerated or described in the first section of this act shall be and the same is hereby authorized to employ a clerk, whose compensation and mileage shall be the same as that of a member of the board. So much of section four of the act of June second, one thousand eight hundred and ninety-one, as authorizes the boards of examiners of candidates for Inspectors of anthracite coal mines to engage the services of a clerk is hereby re-

pealed, and all clerks hereafter appointed by the several boards hereinbefore mentioned shall be appointed under the provisions of this act.

Section 3. The members of the said boards shall, on the final adjournment of each session of their respective boards, submit to the Auditor General sworn statements approved by the president or chairman of their respective boards, setting forth the number of days during which each member shall have been actually in attendance on the sessions of the board of which he is a member during said session, as well as the distance from the home of the member to the place of meeting of his board as aforesaid, by the nearest practicable railway route, and the number of miles actually traveled by him; and the clerks of said boards shall submit like statements, and the Auditor General shall, upon the receipt of such sworn statements draw his warrant upon the State Treasurer in favor of each of such members and clerks for such sums as shall appear to be properly due each.

Section 4. All acts and parts of acts or supplements thereto in conflict herewith are hereby repealed.

Approved—The 26th day of June, A. D. 1895.

DANIEL H. HASTINGS.

ANTHRACITE MINE DISTRICTS.

FIRST ANTHRACITE DISTRICT.

Scranton, Pa., February 29, 1896.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor of presenting my annual report as Inspector of mines for the First Anthracite District, for the year ending December 31, 1895.

The total output of coal for the year was 6,510,817 tons, an increase over that of the previous year of 603,566 tons. The total shipments was 6,216,937 tons. The number of fatal accidents was 39 against 47 in 1894, the non-fatal numbered 121 against 98 the year before. Nineteen wives were made widows, and thirty-five children under fourteen years of age were made fatherless by the accidents.

For each fatal accident which occurred, 166,944 tons of coal were produced, which is an increase per fatal accident of 45,258 tons over that of 1894. The number of tons of coal produced per accident fatal and non-fatal was 40,692 or about the same as that for the year preceding.

The average number of days worked by the forty collieries of the district was 182.31 against 171.9 in the year 1894.

There has been no material change in the general condition of the mines during the year. The only improvements were a few short planes and tunnels that were essential to keep up the production.

In addition to the usual tables, the report contains a description of each fatal accident that occurred in the district during the year, also a few short remarks on the principal causes of the same.

Respectfully submitted,

EDWARD RODERICK,

Inspector.

Table Showing the Production of Coal, the Number of Persons Employed by Each Company During the Year 1895, and the Average Number of Tons Produced per Employe.

Names of Companies.	Number of tons produced.	Men employed.
Delaware and Hudson Canal Company,	2,403,385	5,371
Hillside Coal and Iron Company,	840,904	2,156
Delaware, Lackawanna and Western Railroad Company,	463,015	1,062
Jones, Simpson & Co.,	289,379	682
Lackawanna Coal Company,	287,596	961
Elk Hill Coal and Iron Company,	272,846	445
Pennsylvania Coal Company,	247,138	683
Pancoast Coal Company,	224,092	660
North West Coal Company,	190,518	483
Edgerton Coal Company,	173,839	382
New York and Scranton Coal Company,	173,395	447
Sterrick Creek Coal Company,	156,013	580
Blue Ridge Coal Company,	154,199	484
Moosic Mountain Coal Company,	120,888	198
Mt. Jessup Coal Company,	116,365	383
Murray Coal Company,	50,096	74
Riverside Coal Company,	74,091	278
Dolph Coal Company,	109,937	437
Jermyn,	134,100	601
Waddell Coal Company,	21,089	108
Franklin Coal Company,	6,132	71
Russel B. Coal Company,	1,800	46
Totals,	6,510,817	16,272

Number of tons of coal produced per employe, 400+.

Number of Fatal Accidents and Quantity of Coal Produced per Life Lost.

Names of Companies.	Number of fatal accidents.	Number of tons of coal produced per life lost.
Delaware and Hudson Canal Company,	13	184,876
Hillside Coal and Iron Company,	4	210,226
Delaware, Lackawanna and Western Railroad Company,	2	231,507
Mt. Jessup Coal Company,	2	58,183
Jones, Simpson & Co.,	2	144,689
Elk Hill Coal and Iron Company,	2	136,423
Miscellaneous coal companies,	14	151,780
Total and averages,	39	166,944

Names of Companies, Number of Fatal and Non-Fatal Accidents, and Tons of Coal Produced per Accident.

Names of Companies.	Number of accidents.	Tons of coal produced per accident.
Delaware and Hudson Canal Company,	45	53,408
Delaware, Lackawanna and Western Railroad Company,	13	35,616
Hillside Coal and Iron Company,	30	28,020
Elk Hill Coal and Iron Company,	6	45,474
Mt. Jessup Coal Company,	9	12,929
Moosic Mountain Coal Company,	6	20,148
Edgerton Coal Company,	6	28,973
Pancoast Coal Company,	8	28,011
New York and Scranton Coal Company,	5	34,679
Jones, Simpson & Co.,	4	72,344
Blue Ridge Coal Company,	4	38,549
Miscellaneous coal companies,	24	53,271
Totals,	160	401,692.6

Classification of Accidents.

Causes of Accidents	Killed or fatally injured.	Injured.	Fatal.
By falls of coal and "boney,"	2	10	12
By falls of ordinary roof rock,	16	44	60
By falls of bell shaped rocks,	2	.....	2
By falls of dividing rock,	2	.....	2
By flying coal from blasts,	1	6	7
Shot through pillars,	4	.....	4
By explosions of gas,	.....	9	9
By explosions of blasts,	.....	6	6
By explosions of powder,	.....	7	7
By kicks from mules,	1	4	5
By cars, inside,	5	20	25
By cars, outside,	2	.....	2
Miscellaneous, inside,	2	11	13
Miscellaneous, outside,	2	4	6
Totals,	39	121	160

Occupation of Persons Killed and Injured.

Occupation.	Killed or fatally injured.	Injured.	Total.
Miners,	12	49	61
Laborers,	14	38	52
Drivers,	5	12	17
Runners,	1	6	7
Foot men,	1	2	3
Pump men,	1	2	3
Switch men,	1	1	2
Door tenders,	1	2	3
Breaker men,	1	3	4
Teamster,	.....	1	1
Engineers,	.....	2	2
Slate pickers,	.....	2	2
Carpenter,	1	.....	1
Coal operator,	1	.....	1
Track layer,	.....	1	1
Totals,	39	121	160

Nationality of Persons Killed and Injured.

Nationality.	Polish.	Irish.	American.	English.	Welsh.	Hungarian.	German.	Austrian.	Scotch.	Italian.	Russian.	Lithuanian.	Slavish.	Total.
Killed or fatally injured,	9	7	8	3	3	2	3	1	..	1	1	..	1	39
Injured,	26	21	12	17	12	16	3	4	3	3	..	2	2	121
Total,	35	28	20	20	15	18	6	5	3	4	1	2	3	160

Some Brief Remarks on the Causes of Accidents.

Of the one hundred and sixty accidents which happened in and around the mines of this district during the year, seventy-six were caused by falls of coal and rock, while mine cars were responsible for twenty-seven more, making one hundred and three, of the one hundred and sixty, directly traceable to these two causes.

Some of the deaths caused by falls were, undoubtedly purely accidental, but as a perusal of the descriptions herewith given will show, the greater number of them, were the results of direct or indirect recklessness.

It is remarkable to note the number of men who were killed during the year by going under a portion of roof which they had been trying to pull down just a few minutes previous to its falling.

This cannot, at all times, be attributed to the ignorance of the victim, for in many cases during the year, some of our most intelligent and careful miners have been killed in this very manner. In some cases of course, it is a want of knowledge of the nature of the roof, and of the methods of taking it down when it becomes dangerous, that causes the accidents, but more frequently it is the lack of a spirit of perseverance, or as it might be said, a want of that spirit of stick-to-it-until-it-is-down that is the direct cause of so many accidents of this nature. There are very few men who have been engaged in mining coal for any length of time, who have not had experience in this line of trying to pull down some apparently loose slab of roof, and not being able to accomplish it promptly, have gone under it to work, until some more convenient time presented itself to pull it down. Oftentimes, after firing a shot men go back to the face, sound the roof and discover it to be somewhat loose but, as they say, not loose enough to fall as yet, however we will keep an eye on it, and with this remark proceed to work in the face, when it is their imperative duty to first secure the roof.

It seems that the want of an appreciating sense of the danger, sometimes coupled with ignorance, but more frequently with a spirit of reckless indifference to the surroundings causes many of the accidents from falls, and so long as men continue to work in this careless and thoughtless manner under dangerously loose pieces of roof and, thus ignore the first law of nature, just so long will the record of these accidents continue.

As to the accidents by cars, nothing but what has oftentimes been said can be reinterated here. Some of these, it is true, are purely unavoidable, but the major portion of them, like every other class of accidents are the direct results of a want of proper care on the part of the unfortunates themselves. As to the accidents by blasts, and powder in various ways, it may, with propriety, be said that they

were few, considering the great quantity of this dangerous material used during the year.

There was consumed in the production of the total output of coal, 220,462 kegs, or 5,611,550 pounds of powder.

As a result of handling this quantity of powder, twenty-four accidents only can be traced to this source, five of these having proved fatal. By reference to the five fatalities caused by blasts, it will be observed, that four of them, with but ordinary care and foresight could have been averted. It may be well to note that one of these occurred at the Glenwood, where the men stood opposite a nine foot pillar in which there was being fired a five foot hole, when the shot was fired it blew through the pillar and instantly killed one of the three men.

Another occurred at Johnson's No. 2 (formerly known as Jermyn No. 3), where a miner was about to fire a shot on a rib. He gave the usual signal to the men on the other side, who having retired from the face for two or three days before when a shot was being fired on the other side, now insisted on staying at the face of his chamber telling his laborer that this shot would be like the others, and would not blow through. But while he and his laborer were discussing the advisability of going back, the shot exploded, blew through the pillar and instantly killed the miner, while the laborer, though fatally injured, was spared for some time to give a true interpretation of the whole affair. The other fatality occurred at Grassy Island, where one of the group of eight men was killed by a flying piece of coal from a shot fired one hundred and thirty feet away.

When the warning was given to these men, some of them retired to a place of safety, while others chose to remain, with the foregoing result. The fifth death caused by shot firing was purely accidental, as the party who was killed at the time he received the signal of fire, retired to a place of safety, as he supposed, but when the shot which was in a cross cut, went off it blew a small piece of coal diagonally across the breast, struck the man on the temple and caused his death instantly. The other nineteen accidents from this cause were non-fatal and the most of them were very slight, showing on the whole a remarkable immunity from accidents in the handling of so vast a quantity of so dangerous an explosive.

The remaining thirty-three accidents were due to the various causes inside and outside the mine. Some were painfully injured by getting kicked by fractious mules, others were more or less injured by explosions of gas, while a few were killed and others injured by the numerous miscellaneous causes in and about the collieries.

DESCRIPTION OF ALL THE FATAL ACCIDENTS WHICH OCCURRED IN AND ABOUT THE MINES OF THE FIRST ANTHRACITE DISTRICT DURING THE YEAR 1895.

The first accident of the year occurred at the Moosic Mountain Coal Company's new shaft about 7.30 p. m., of the 11th of February. The victim was an American footman named Friend Bush, aged 23 years.

After an examination of the scene and of the men who were first to appear had failed to reveal anything definite as to how he met his death, it was decided to submit the case to a coroner's jury for investigation, and on the following day an inquest was held, which also failed to elicit anything definite as to how it had happened. From the fact, that a few minutes before he was heard shouting for help, he had borrowed a shovel from one of the nearby miners, it can be inferred that he was in the act of cleaning the cross beam on which the carriage rests at the foot of the shaft, when a piece of coal or ice fell down the shaft struck him and knocked him into the sump. The jury's verdict was, that he met his death by an accident at the Moosic Mountain shaft.

No. 2. Charles Pritchard, a Welsh miner, 34 years of age was fatally injured by a fall of bell shaped rock at Eddy Creek on the 16th of February. He and W. H. Carter, the miner who worked the place wherein Pritchard was injured were close friends.

He had requested Pritchard to help him take down some roof which was dangerous. Carter stated that they had taken down all they intended to, and before commencing to clear it away he and Pritchard had carefully examined the roof by sounding it and were satisfied that it was safe. Carter who had been working under this piece of rock had just stepped to one side and Pritchard had taken his place when the rock fell on him. It was about four feet one way and three the other, ten inches thick at the centre, tapering to a thin edge on all sides. It is my opinion that it was loosened by sounding, and as it was entirely detached from the roof, it was forced to fall by the air getting into the seam.

This was purely an unavoidable accident and occurred to one of the most careful of miners.

No. 3. An accident resulting in almost instant death to a driver, named James Mills, occurred at the Lackawanna shaft on the 23d of February.

I found upon investigation that when the accident occurred some empty cars were off the track, not far from the foot of the slope, and in order to keep things moving on the slope, the mule at the foot had to stand alongside of a loaded trip that was about to be hoisted. The space where the mule was standing was about four

and a half feet wide and twelve feet long. Three cars passed the mule and boy without causing any trouble, but as the fourth came along, the trace or stretcher chain in some way became fastened to it and before the cars could be stopped the mule was pulled back and fell against the boy and caused his death.

No. 4. On the 1st of March an accident occurred at Jermyn No. 4 (since known as Johnson's No. 1) which resulted in the death of a Polish miner named Zebo Labojinski two days later. On arriving at the scene of this accident I learned that this man was the same person whom I had on the very day of the accident cautioned against working under a bad piece of "middle rock" and to which I had very pointedly called his attention.

From his laborer whom I examined through an interpreter I learned that after the foreman and myself had left his place, he told the laborer that he would fire one shot and would afterward take down the rock to which his attention had been called. He fired this shot, and after waiting a few minutes for the smoke to clear, he took a pick and went to the face to see what the shot had done, and while in a stooping position a piece of the "middle rock" fell on him, pushed him forward, causing him to fall on the pick, which was forced into his body, inflicting an ugly wound from the effects of which he died as above stated.

This man was a good miner and had his place well secured and in a neat condition, but he must have been a fellow who would take risks. He had been warned of this rock and was ordered not to work any longer under it by the writer and the foreman, and had positively stated that he would not do so, and had taken up a drill in our presence to start a hole to blow it down, but as soon as our backs were turned he began to do the very thing he had promised not to do. Had he shown any inclination to be disobedient we would have mistrusted him, but as he showed a cheerful willingness to comply with the orders given him, we never for a moment doubted but that he would do as he had been ordered.

No. 5. At Mt. Jessup slope on the evening of March the 7th, John Labock, an Hungarian laborer, 44 years of age was instantly killed. He was engaged loading a car on a gangway road where a skip was being taken off on the lower side for the purpose of putting in a branch. Before he began to load the car, the miner and a laborer carefully examined the roof and thought it was perfectly safe to work under and all hands began to do so.

However, in less than five minutes after they began to work, a large flake of "bony" and rock fell and instantly killed the laborer and very seriously injured the miner. It was afterwards discovered that this slab had been entirely detached from the main roof by a

slip which ran its entire length and all that was necessary to let it fall was to remove the little support it had at its innermost end. This had partly been done by the recently fired shot, leaving but a small support at the lower end along the rib where it broke off by its own weight.

No. 6. On the 11th of March, an accident occurred which resulted in the instant death of a pump-man named William Campbell, aged 60 years, at the No. 3 shaft pump house.

Campbell, who was said to be one of the most careful of men, was with another man in the act of removing an old plunger which had but recently been taken out after having done service for thirty-one years.

It lay near the large balance wheel of the pump, and Campbell had repeatedly cautioned his fellow workman of the danger of getting too near the revolving wheel, little thinking that he would be caught by what he had so often warned his friend against. However in making an effort to lift the plunger to throw it forward he slipped on some ice and fell against the wheel, which caught him and pulled him through its frame work, to its top, from whence he fell a moment later to a lower platform a lifeless body.

No. 7. At Olyphant No. 2, on March 22, an accident occured resulting in the instant death of a young "runner" named Edward O'Hara.

Another young man who was also employed as a runner, and who was by O'Hara's side when he was killed, stated that he and the deceased had gone up into what was known as Ed. Knighton's chamber for the purpose of running a car down.

After starting it down from the face, they followed it for some distance, when a laborer employed by a miner who was working the chamber on the east, came through a cross cut lower down on the pillar than where they were and shouted "fire in the cross cut."

McHale one of the runners then shouted "fire" to the men whose car they had just ran out, who replied by saying "fire away." McHale then shouted "fire away" to the man who had first given them warning. With this the two runners turned into a cross cut to fill their lamps with oil. McHale stated that O'Hara remarked they would stay there until the shot "went off," but had no sooner made this remark than the shot exploded, blew through the pillar and a small piece of coal struck him on the temple and instantly killed him and slightly injured McHale.

The evidence of all witnesses went to show that O'Hara was killed as stated by McHale. However, an inquest was held and the jury's verdict was that death was accidental and that the mine law with regard to shot firing had been complied with in full.

No. 8. At the Glenwood shaft on the 28th of March, Joseph Kobock, a laborer was instantly killed by flying coal from a shot that

blew through a pillar. The facts in this case are as follows: Two miners were turning a breast from an old one; a shot was to be fired on the right rib and Joseph Kobock one of the laborers was sent back on the gangway to give notice to any one who might have been in danger. The miner after putting a squib in the hole, waited for the signal from his laborer; after receiving this he turned the squib match down to hasten its burning, lit it, and ran as he supposed, to a place of safety. He with his two laborers stood directly facing the coal in which the shot was being fired with only nine feet of pillar between the gangway where they were standing and the breast in which the hole was being fired. They were standing in a row a little distance apart, when the shot went off, blew through the pillar and carried Kobock up against the upper rib of the gangway a distance of seventeen feet, killing him instantly and slightly injuring the others who were not directly in the course of the shot.

As there had been no wilful neglect or violation of the law with regard to shot firing, and as all hands had as they thought retired to a place of perfect safety, I decided that this was one of the very sad and unfortunate oversights on the part of old and experienced miners. Why these men should have stood opposite to a place where a five foot hole was being fired in a pillar, knowing as they say they did, that it was only nine feet thick, is difficult to understand, and can only be attributed to a want of intelligent thought on the part of those most interested.

No. 9. At Mt. Jessup breaker on the 28th of March, a Russian loader named Michael Fetzko, was so seriously injured that he died from the effects in a few hours afterwards. When not employed in loading, his duty was to keep the tracks under the breaker clean. Babbitch Evan, a fellow loader was running a partly loaded gondola down; he was standing on the rear end and did not see any one ahead of it.

It was his custom before starting a car to shout to give warning to any one who might chance to be on the track; he shouted this time though he had not heard or seen any one ahead and then started the car down slowly. At the same moment a train of loaded coal cars passed on the Delaware, Lackawanna and Western railroad near the breaker, which made considerable noise and it is supposed that while in a stooping position with his back toward the moving gondola he was struck and killed.

No. 10. On the 29th of April, Peter Noone, an Irish miner was instantly killed at Richmond No. 3 by a fall of rock. The scene was visited by me on the same day and the only witnesses to the sad affair were examined. His fellow miner stated that deceased and himself were in the breast on Saturday the 27th during which time

the roof was examined and found to be bad, and they were going to place a prop under it, but thought they would leave it until Monday, when the prop would be put up the first thing in the morning. Deceased carefully examined the roof on Monday and at once began to cut a hitch for a prop. After completing this he went back to measure a prop and then came back to the face to see whether or not the prop was long enough. In doing this he struck the roof with a scraper, when suddenly a slab of rock measuring eight feet by nine and six inches thick at center, fell and crushed him to death. The vein is only five feet thick and it seems to me with little care this could have been prevented.

No. 11. An accident which resulted in instant death to an Italian laborer named Bonafal Mortho occurred at Jones-Simpson drift on the 11th of May. The chamber in which it occurred had been stopped for some time, but was about to be restarted. The roof is what is known as "six inch" and at all times sounds "drummy." To prevent its falling, props had been placed within eight feet of each other and as near to the face as was possible. The miner stated that he had carefully examined the roof a few minutes before it fell and thought it "all right."

After doing this he went to the face to drill a hole, while the laborer began to block up the road and was in the act of tamping dirt under a sill at the end of the road, when the roof which had just been sounded fell, struck him on the back and forced his head against the loose rock on the bottom.

For the want of a little good judgment on the part of a miner another life was crushed out.

No. 12. John Burnett, a Welsh miner 36 years of age, lost his life by a fall of rock at the face of his chamber at Storr's No. 1 on the 24th of May.

No one was present when the fall occurred except his laborer who was a Polander, and as near as could be learned from him, it seems that deceased was standing with a drill in his hand looking at the results of a recently fired shot when a slab of dividing rock fell on him.

Burnett and a neighboring miner had a few minutes previously been talking in a cross cut about going home and had decided to go after drilling and firing another hole. Burnett had done this and had gone back to the face and from the indications was caught under the edge of a slab of rock that fell while he was in the act of examining the results of his "home shot."

No. 13. A fall of rock at the Edgerton, on the 24th of May, resulted in the death of John Duffy, an Irish laborer. He was in the act of lifting a lump of coal to the top of a car which he was loading when

a small piece of soft sandstone fell from a hole in the roof, forcing him to the ground, the car scraping his face as he fell making an ugly gash. He struck on the bumper when he fell and several of his ribs were fractured and forced into his lung, causing his death in about eight hours afterwards.

The fall occurred in the center of the track, between two props from a place which had been examined but a few hours before and which was thought to be perfectly safe. Such roof often sounds safe when it is far from being so, which must have been the case here, for the material that fell was wet and very soft and sandy.

No. 14. On the 29th of May, an accident occurred at Forest City slope which resulted in the instant death of a young Polish driver boy named Frank Gemeada.

From inquires made on the following day it was learned that the boy had gone into a chamber after a car and when near the latches on the gangway road, he in some manner fell under the car and was almost instantly killed.

No. 15. George Heabrand, a driver, 19 years of age was instantly killed at Jermyn No. 3 on the 19th of June. A young boy who was leading the team of mules which deceased was driving when the accident occurred stated, that after the mules were hitched to the cars to pull them down the slope as usual, the cars started to run faster than they usually did, and that it was all the mules could do to keep ahead. When near the bottom of the slope, which is a very short one, he looked around and saw the driver falling; just then the cars stopped and he discovered that the driver had fallen and that the cars had passed over him.

Another young boy who was sitting near the place where the cars struck the mules, said he saw the rear mule step on the driver's foot causing him to fall under the cars.

No. 16. On the 19th of June at Jermyn No. 3 a Polish miner named John Hamplishki was fatally injured by a fall of dividing rock at the face of his chamber, dying from the injuries in about six hours afterward.

His laborer who was standing within three feet of him when he was injured stated that he told him that this piece of rock was bad, to which the miner replied by saying that he had eyes and could see when a piece of rock was bad, and went on fastening his drill to put in a hole. He got the bar fastened and had just began to turn the machine when the fall occurred which caused his death. The piece of rock was six feet long, about one foot wide, and sixteen inches thick, it ran across one corner of his chamber and could have easily been taken down.

No. 17. At Jermyn No. 1, John R. Nicholason, a switch tender on a slope was fatally injured on the 21st of June and died on the 25th.

No person saw him injured, and when he was questioned about it did not seem to know how it occurred. It is supposed however from the position in which he was found a few minutes after he was hurt, that he had been standing with his back toward the trip of empty cars that was running into a branch and was struck and fatally injured. Some of the boys who worked in the vicinity thought that perhaps he had forgotten himself and imagined he had fixed the switch for the main slope, but instead had turned the switch for the branch, and was struck by the cars before he could get out of the way.

No. 18. At Storr's No. 1 on the 25th of June, an old and experienced German miner named Peter Kline, was fatally injured, and died on his way home from the mine.

The miner in the adjoining chamber stated that Kline had just fired a shot which had blown out a prop. He went back to the face and instead of replacing the prop, began barring at some rock, and while thus engaged a large mass of coal and rock fell on him.

It was ten feet wide, fifteen feet long and about two feet thick near the center, tapering from this point to a thin edge on all sides.

It was a very treacherous piece, and after the shot on the rib had been fired, there was nothing to support it on either side nor at the end nearest the face, for a slip ran up, completely cutting it off on all sides from the main roof. It is my opinion however that if Kline had taken the precaution of carefully sounding this slab before he began to bar at it, he would in all probability have discovered it to be bad and would have taken it down.

No. 19. Clinton mine was the scene of an accident on the 27th of June which resulted in instant death to a young man named Patrick Gorman. He was employed as a laborer by a miner named Michael O'Neil who stated that he had put a prop under the slab which fell, but it had been "knocked out" by a shot fired earlier in the morning.

He wanted to replace it and put up another also, but was persuaded from doing so by his laborer, who wanted to get out early to attend the bicycle races at Carbondale, and in order to get out as he desired he requested his miner to help him load the car instead of putting up the props for safety.

Both knew the overhanging rock was bad, but thought it would not fall until the car had been loaded. However, only a few shovels full of coal had been put into the car when the slab fell with the result already stated. The slab was only about six feet square and not more than six inches thick, while the vein is only five feet high.

No. 20. Sturges shaft was the scene of an accident on the 12th of July, whereby Paul Rozonski a Polish laborer was instantly killed

by a fall of rock. A chamber was being turned off the gangway and was up about fifteen feet. No props had been up as yet, as it was thought best not to put them in place until after the track should have been put in. The track layers were engaged putting in the branch when the fall occurred. The roof had been examined and thought safe, but as was afterwards revealed, one of these dangerous slabs with slips running up on all sides had deceived the miners, as is often the case where the roof is full of slants and slips, as was the case here.

No. 21. An accident which resulted fatally to a Polish laborer named Thomas Wrouski occurred at Olyphant No. 2 on the 15th of July.

The evidence showed that the miner for whom Wrouski was working, along with the miner from the adjoining chamber had tried to pull down a slab of rock, but had failed to do so by barring.

It was afterwards decided to drill a hole above it, for the purpose of blasting it down and it was while tamping this hole that the slab, which was only six by four feet and four inches thick, fell and added another to the long list of fatalities which occur through the lack of proper judgment.

No. 22. On the 23d day of July, Jones, Simpson & Co.'s drift was the scene of an accident which resulted fatally to a Welsh driver named Griffith Reese. No person saw the accident, but from the position in which he was found, it would seem that he had made an effort to cross the track, near the foot of a plane and was struck by an approaching trip of loaded cars and run over.

No. 23. At the Marvine shaft on the 14th of August, an accident occurred which resulted in the death of a Polish laborer named William Jellick. He was injured by a fall of rock at the face of the chamber in which he was employed, which was very much of the shape of a row boat, nine feet long, about four feet in center and running to a point at each end. Two props had been placed under this slab, but too near the edge, and the heavy side of the slab bore down on the props causing them to give way, allowing the rock to fall with above sad results.

No. 24. Michael Scherno a Hungarian laborer was instantly killed at Jermyn No. 1 on the 20th of August.

As far as could be learned this man was in the act of breaking a large piece of coal under the edge of the top coal which was being taken down, when a large piece of the top coal fell on him. The miner knew this piece of coal was loose, as he and his fellow miner had been trying to pull it down, but failing to do so with drills, they left it, intending to blast it down on the following day. However before going home they gave the laborer orders not to go under it,

but to load the day's coal from another part of the chamber, but he evidently disregarded this order, and went to the place where he had been forbidden to go and in a few minutes lost his life.

No. 25. At the Pancoast colliery on the 30th of August, Thomas Indian, an English laborer 21 years of age was fatally injured.

He, his miner and another man were sitting on a pile of loose coal near the face of the gangway when they heard the coal on the upper side of the gangway begin to "work."

They instantly made an effort to escape, and the two miners succeeded in getting about six feet away, but Indian was caught while in the act of rising by a falling slab of sand rock which measured eight feet in length, seven feet in width and about one foot thick at the center, running to a thin edge on all sides.

The roof had been carefully examined just a few minutes before and no indications whatever of any danger had been detected, yet in this apparently safe place this young man's back was broken by one of those treacherous bell rocks. He died on the 3d of October.

No. 26. At the Erie shaft on the 2d of October, an accident occurred which caused the death of an Irish miner named Patrick Ruddy.

On a visit to the scene of this accident I learned that a few minutes before the fall occurred, a shot had been fired in what is known as the "fourteen inch" but had failed to blow it down.

When the miner and his laborer returned to the face they discovered that the hole had not done its work and at once began to bar the coal down. After some work in this manner the coal began to "give," and Ruddy told his laborer to go back as the coal would soon fall, but before either one of them had time to get three feet away the coal at which they had been working as well as a large slab of slate and rock fell and caused the miner's death.

No. 27. On the 5th of October, at the Murray's shaft an accident occurred wherby one of the operators of the mine named Thomas Brown was instantly crushed to death.

He had charge of four men who were engaged at the foot of the shaft in making a new branch. To obtain a convenient height it was necessary to blow down about fifteen inches of roof. This had been done on one side of the branch and a row of props placed in the center to support the main roof while the work of blasting was going on on the upper side, where there was a portion of roof eighteen feet long, from six to twelve feet wide and fifteen inches thick to be blown down. At the eastern end of this, a few minutes before the accident occurred, a shot had been fired, immediately after which Brown and one of the workmen proceeded on their way to the scene of the blast, but instead of passing on the lower side of the

props, Brown thoughtlessly walked directly under the portion of roof in which the shot had just been fired, and in a moment was crushed into an unrecognizable mass.

Brown was one of the most careful and competent of miners, yet in a very simple manner and in an apparently safe place he lost his life by a very treacherous piece of roof.

No. 28. At Richmond No. 4 on the 12th of October, Michael Fritsch, a breaker carpenter lost his life by being drawn through the culm chute.

William Shipman, employed with deceased, stated that he and Fritsch were together a few minutes before the accident and that Fritsch had given him some orders about putting down some sheet iron in a small chute in which a new conveyor was to run. Before doing this however he sent Shipman for some oil, saying he would go into the culm chute to take some measurements. This was the last seen of him alive, for in less than ten minutes from the time he and Shipman parted his body was seen coming through the chute under the breaker. An inquest was held and the jury's verdict was that death was accidental and neither the company nor any of the employes were in any way responsible for the accident.

Nos. 29 and 30. At Johnson's No. 2 (formerly known as Jermyn No. 3) an accident occurred on the 12th of October whereby an Austrian miner named Joseph Ustack was instantly killed and Stephen Deitz his laborer was fatally injured. A thorough investigation of this affair revealed that Ustack was working in a counter that was cutting off a line of chambers in one of which, worked one Frank Godoski who fired the shot that caused the death of these two men.

Godoski stated, as did also the laborer who was fatally injured, that the usual sign of fire was given in ample time for both men to have made their escape. It was also learned that when the signaling first commenced Ustack refused to return the same, so Godoski went around to his place and notified him of his intention to fire, to which he replied "all right" and further said he need not come around any more as he would retire to a place of safety each time he heard a "rap."

This arrangement was understood between the two men, and for three days Ustack went back as agreed upon, each time a shot was to be fired, but it seems he became disgusted at running back so often and told his laborer that he would not go back any more. Deitz said that when Godoski was about to fire the shot that did the fatal work, he gave the usual signal before doing so, but Ustack paid no attention to it, and said he would not go back this time as he thought the hole would not blow through and insisted that he was safe where he was standing.

Deitz however believing it was not safe to remain, tried to persuade him to go back and while they were talking the shot "went off," blew through the pillar and the flying coal struck the two men with the above result. It is plainly evident that this accident would not have taken place had ordinary common sense been exercised by these two men, but so long as such foolhardy and contemptible risks are taken by men we may expect the inevitable results.

No. 31. Eddy Creek shaft was the scene of an accident on the 17th of October whereby a young man named James McHale lost his life. He was employed by Thos. Welsh, a miner, who was engaged driving a cross cut some distance back from the face of his chamber.

Before commencing work on the rib, a careful examination of the roof had been made. There was a seam visible in the roof above the spot where the two men were at work, and during the morning Welsh's attention had been called to it by a fellow miner who came to visit him and Welsh told him that he thought it was "safe and solid" and with this remark again sounded it in a thorough manner with a drill, and both men were convinced of its safety. Two holes had been fired and the third one started when the slab which had so recently been examined fell with fatal consequences.

Three examinations in all were made and each time some loose pieces were taken down and before commencing to drill the third hole, both the miner and laborer each with a drill on top of this dangerous slab had failed to move it, yet in less than ten minutes after ceasing their efforts, McHale was killed. This slab was one of these misleading pieces of roof that so often deceive the most practical miners, nevertheless there is one fact about such accidents as this and that is, that when miners learn not to go under a piece of roof which they have once tried to take down, then and not until then will there be a decrease of accidents of this nature.

No. 32. Elick Mezick, a Polish laborer was instantly killed at Grassy Island shaft on the 25th of October. He and seven others was sitting on a gangway road one hundred and thirty feet from the face. The man who was driving the gangway was about to fire a shot and sent his laborer back to notify these men of his intention, when the laborer gave them the signal they replied by saying "fire away." The laborer then told his miner to fire the shot. The miner having received the signal, lit the squib and hurried to a place of safety some eighty feet away. As soon as he arrived at this place he again shouted and just as the word was spoken the shot exploded and hurled back a small piece of bony coal which struck Mezick on the back of the head, fracturing his skull and caused his instant death.

The witnesses to this accident who were sitting with deceased

said they did not move away thinking they were perfectly safe at such a distance from the face.

No. 33. On the 28th of October, an accident occurred at Clifford which resulted in instant death to a German miner named Martin Morse.

The miner working the place next to him stated that a shot had been fired early in the morning and that Morse at the time of the accident was engaged working out the loose coal from the bottom bench with about four feet of top coal hanging over him which he evidently must have thought perfectly safe.

While he was thus engaged this top coal fell and he was instantly crushed into a mangled mass of flesh and bone.

From all accounts of this man and from the general appearance and condition of his place one would say that he was a careful, thoughtful and experienced miner, yet after all it must be said that overconfidence in the safety of the top coal led him to neglect.

No. 34. Peter Naunton, a laborer, was fatally injured at White Oak on the 12th of November. He was going from work and jumped on the rear end of a train of loaded cars that were being drawn by a locomotive from the mine to the breaker.

He was standing with his legs spread one on each bumper when the locomotive jerked the trip, causing him to lose his balance and fall backward, and before he could recover himself he was struck by a loaded car that was following the trip, pushed along the track for some distance until his shoulder came in contact with a tie, causing a fracture of the spinal column. He died in a few days afterwards.

No. 35. An accident at the Dolph drift on the 13th of November, caused the instant death of a miner named Joseph Sivock.

It was learned on investigation that this man along with his laborer had been trying to bar down a piece of roof four feet long, two feet wide, with an average thickness of four inches, and failing to accomplish their task as readily as they desired, they ceased their efforts in this direction and went to work under it.

They however had no sooner gotten under it than it fell and struck the miner on the head killing him instantly.

No. 36. On November the 15th, a miner named Christ Severs, was instantly killed by a fall of rock at the Waddell slope.

A few minutes before his death he came to the foot of the slope and told the foreman that a fall had taken place in his chamber. He and the foreman started at once for the place to make an examination. On arriving at the scene the foreman took up a drill, sounded the roof and concluded that it was perfectly safe to go under. They further examined the roof to the face, and on their way back

came directly under the piece of roof which had been examined but a few minutes previously. The foreman had just passed out from under it when it fell, struck Severs on the head, fractured his skull, broke his back and caused his instant death. The rock was one of the slanty pieces running from a thickness of twelve inches at the center to nothing on all sides.

No. 37. At the Marvine shaft on the 16th of November, an aged door-tender named Richard Johnson, was instantly killed by being struck by a runaway car.

The runner who ran this car put a sprag in each of the four wheels when it started from the head of a new plane which caused it to stop at or near the foot of the plane. Here the driver removed the sprags and started the car down the grade to the gangway. He tried to put in a sprig, but failed and the car got away from him so rapidly that he could not catch up with it to make the second attempt. The old man was stationed at a door near the head of another plane about five hundred feet away from where the car started. He heard it coming and made an effort to get out of the way, but instead of stepping across the track where he would have been safe he kept on the track for some distance and was struck by the car before he reached a place of safety.

No. 38. At Johnson's No. 2, Patrick Campbell, an Irish miner, was fatally injured by a fall of rock on the 25th of November. His laborer who was by his side when the fatal fall occurred, stated that he and Campbell had been trying hard for some time to pull down this piece of rock, but had failed to do so, although each had a drill prying on it.

They then decided to blast it down, and a hole was started, the miner striking while the laborer held the drill. They had however only drilled about two inches when it fell, fracturing the miner's both legs, also making an ugly wound on the abdomen, which in all probability was the direct cause of his death in a few hours afterwards.

No. 39. At Leggett's Creek, on the 4th of December, Edward Holmes, a young driver was kicked by a mule, and died from the effects on the following day. He was found lying on the side of the track by another young driver who asked him what was the matter, to which he made reply that he had been kicked by a mule as he was passing him.

Mine Foreman's Examination.

The examination of applicants for mine foremen's certificates of qualification was held at Carbondale in this district on the 9th and 10th of July. The board of examiners consisted of A. P. Patten,

Superintendent Vaughan Richards and James E. Morrison, together with the district Inspector.

Twenty-five applicants presented themselves for examination, sixteen of whom passed successfully and were recommended to receive certificates. Their names were Joseph Hadfield and John Indian of Throop; Gwylym Jones, Thos. W. Jones, William Reid, Luther Edwards, Obed Jenkins and John Walkingshaw of Scranton; Miles J. McAndrew and Patrick I. Sally of Archbald; James B. Williams, Thos. F. Curren, Edward Evans, John J. Morgan and W. H. Berkheiser of Olyphant; Thos. Parry of Vandling.

Those who received assistant mine foremen's certificates of qualification at the same examination were the following: William Murdock, Albert Mason and Thos. W. Lewis of Olyphant; Lewis H. John, Thos. P. Williams, David Jenkins, John Lloyd and George C. Williams of Scranton; Patrick Fox and William D. Lewis of Carbondale; R. B. Nicol, Thomas Kelley and Thomas J. Keilty of Archbald.

TABLE 1.—*Showing Location, Etc., of Collieries in the First Anthracite District.*

Name of Colliery.	Name of Operator.	Location—County.	Name of Superintendent.	Postoffice Address.
Leggetts Creek.	Delaware and Hudson Canal Company,	1st ward, Scranton,	A. H. Vandling,	Scranton.
			J. L. Atherton and Wm. Bowers, assistant general superintendents.	Scranton.
Marvine.	Delaware and Hudson Canal Company.	1st ward, Scranton.		Carbondale.
Eddy Creek.	Delaware and Hudson Canal Company.	Olyphant,		
Olyphant No. 2.	Delaware and Hudson Canal Company.	Olyphant,		
Grassy Island.	Delaware and Hudson Canal Company.	Olyphant,	A. H. Nicol, general mine foreman,	Scranton.
White Oak, Nos. 1, 2, 3 & 4.	Delaware and Hudson Canal Company.	Archbald,	C. H. Scharar, chief engineer,	Scranton.
Jermyn No. 1.	Delaware and Hudson Canal Company.	Jermyn,		
Powderly tunnel.	Delaware and Hudson Canal Company.	Carbondale township,		
Powderly slope.	Delaware and Hudson Canal Company.	Carbondale township,	Alex. Simpson, master mechanic,	Scranton.
No. 3 shaft.	Delaware and Hudson Canal Company.	Carbondale,		
No. 1 drift.	Delaware and Hudson Canal Company.	Carbondale,		
No. 1 slope.	Delaware and Hudson Canal Company.	Carbondale,		
Racket Brook	Delaware and Hudson Canal Company.	Carbondale township,		
Coal Brook tunnels.	Delaware and Hudson Canal Company.	Carbondale,		
Clinton.	Delaware and Hudson Canal Company.	Vandling,		
Wilson Creek tunnel	Delaware and Hudson Canal Company.	Fell township,		
Storrs, Nos. 1, 2 and 3	Delaware, Lackawanna & West. R. R. Co.	Dickson City,	W. R. Storrs, general coal agent,	Scranton.
			W. H. Storrs, asst. general coal agent,	Scranton.
			Benj. Hughes, general mine supt.,	Scranton.
			Thos. W. Phillips, asst. mine supt.,	Scranton.
No. 1 shaft.	Pennsylvania Coal Company,	Dunmore,	Geo. B. Smith, general superintendent,	Dunmore.
Gypsy Grove.	Pennsylvania Coal Company,	Dunmore,	Alex. Bryden, general mine supt.,	Dunmore.
No. 2 shaft.	Pennsylvania Coal Company,	Dunmore,	James Young, assistant mine supt.,	Dunmore.
No. 1 drift.	Pennsylvania Coal Company,	Dunmore,		
Clifford.	Hillside Coal and Iron Company.	Forest City,	W. A. May, general superintendent,	Scranton.
Forest City shaft and slope.	Hillside Coal and Iron Company.	Forest City.	Victor Peterson, assitant superintendent,	Forest City.
Keystone.	Hillside Coal and Iron Company.	Mayfield,	William Walker, assistant superintendent,	Mayfield.
Erie.	Hillside Coal and Iron Company.	Mayfield,	Montrose Barnard, chief engineer,	Scranton.
Glenwood.	Hillside Coal and Iron Company.	Mayfield,		
Richmond No. 3.	Elk Hill Coal and Iron Company.	1st ward, Scranton,	W. H. Richmond, president,	Dickson City.
Richmond No. 4.	Elk Hill Coal and Iron Company.	Richmondale.	F. K. Tracy, vice-president,	Dickson City.
Mt. Jessup.	Mt. Jessup Coal Company,	Winton borough,	Eli F. Conover, general superintendent,	Winton.
Lackawanna.	Lackawanna Coal Company,	Olyphant.	O. S. Johnson, general superintendent.	Scranton.
Pancoast.	Pancoast Coal Company,	Throop,	Chas. D. Sanderson, general supt.,	Throop.
			Jos. V. Birtly, general mine foreman,	Throop.
Simpson.	North West Coal Company,	Fell township,	J. F. Crawford, general superintendent,	
			Jas. G. Shepherd, assistant supt.,	
Edgerton	Edgerton Coal Company,	Archbald,	Jas. G. Shepherd, assistant supt.,	
Ontario.	New York and Scranton Coal Company,	Peckville.	Henry Chapman, general mine supt.,	Peckville.
Sterrick Creek.	Sterrick Creek Coal Company,	Peckville.	John R. Bryden, general superintendent,	Scranton.
Jones-Simpson.	Jones, Simpson & Co.	Archbald,	Edward S. Jones, general superintendent,	Olyphant.
Blue Ridge.	Blue Ridge Coal Company,	Peckville.	J. N. Rice, general superintendent.	Scranton.

Moosic Mountain,	Moosic Mountain Coal Company,	Marshwood,	Charles P. Ford, general superintendent,	Marshwood.
Riverside,	Riverside Coal Company,	Archbald,	Wm. S. Mears, general superintendent,	Scranton.
Murrays,	Murray, Carney & Brown,	Dunmore,	M. J. Murray, general superintendent,	Dunmore.
Johnson, 1 and 2*,	Johnson Coal Company,	Priceburgh,	O. S. Johnson,	Scranton.
Thos. Waddel,	Waddell & Son,	Winton,	Geo. W. Waddell,	Wilkes-Barre.
New Elk Creek,	Franklin Coal Company,	Fell township,	Ira J. Meagley,	Carbondale.
Russell B.,	Russell B. Coal Company,	Fell township,	Russell B. Williams,	Scranton.
Mt. Vernon	Mt. Vernon Coal Company,	Winton,	J. N. Rice,	Scranton.
S. V. White,	Winton Coal Company,	Winton borough,	B. M. Winton,	Scranton.
Pierce,	Pierce Coal Company,	Winton,	David Morgan,	Winton.
Boyer,	Griffith, Rosser & Gilmore,	Carbondale,		Scranton.

* Formerly known as Jermyn Nos. 3 and 4.

TABLE No. 2.—*Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, in the First Anthracite District for the year ending December 31, 1895.*

Names of Collieries.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	Number of days worked.	Number of persons employed.	Number of fatal accidents.	Number of non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.
Delaware and Hudson Canal Company											
Leggetts Creek,	Scranton,	236,093	232,510	227.75	565	1	6	5,852	24	54	.....
Marvine,	Scranton,	210,063	208,326	226.00	487	2	4	6,448	21	55	.....
Eddy Creek,	Olyphant,	262,464	260,829	211.25	477	2	4	7,899	12	51	.....
Olyphant No. 2,	Olyphant,	164,657	162,754	218.75	439	2	2	6,381	21	47	.....
Grassy Island,	Olyphant,	225,806	222,767	228.00	479	1	8	6,421	21	49	1
White Oak,	Archbald,	243,384	240,259	224.75	568	1	1	5,824	9	47	1
Jermyn No. 1,	Jermyn,	245,009	241,201	208.25	572	2	1	4,923	19	42	.....
Powderly,	Carbondale township,	78,818	78,818	217.75	263	.....	1	4,651	15	33	.....
No. 3 shaft,	Carbondale,	28,857	28,857	202.75	146	1	.....	1,925	12	16	.....
No. 1 shaft,	Carbondale,	68,625	68,625	214.50	330	.....	.....	3,514	5	47	.....
Racket Brook,	Carbondale,	181,835	181,835	235.25	65	.....	.....	.....	5	5	.....
Coal Brook,	Carbondale,	301,283	301,107	219.00	748	.....	5	10,518	9	93	1
Clinton,	Vandling,	156,491	154,896	215.00	291	1	.....	6,821	10	38	.....
Total and averages,		2,403,385	2,382,784	218.84	5,371	13	32	71,177	183	577	3
Delaware, Lackawanna and Western R. R. Co.											
Storrs, Nos. 1, 2 and 3,	Dickson,	463,015	456,036	192.9	662	2	11	15,840	22	120	3

Pennsylvania Coal Company.											
No. 1 shaft,	Dunmore,	122,660	116,448	148.25	364	.....	1	5,108	18	31	2
Gypsy Grove,	Dunmore,	125,078	120,582	147.50	319	.....	1	4,130	10	33	.....
Total and averages,		247,138	237,030	147.87	683	.....	2	9,238	28	64	2
Hillside Coal and Iron Company.											
Clifford,	Forest City,	143,489	221,228	161.10	427	1	9	5,814	10	41	2
Forest City,	Forest City,	335,413	225,473	161.75	868	1	11	11,651	20	66	5
Keystone,	Mayfield,	43,819	42,776	165.50	128	.....	.....	1,150	2	19	.....
Erie,	Mayfield,	163,934	150,706	184.75	502	1	2	5,821	24	49	1
Glenwood,	Mayfield,	154,249	140,188	164.50	431	1	4	4,964	19	36	.....
Total and averages,		840,904	780,431	167.52	2,156	4	26	29,400	75	211	8
Elk Hill Coal and Iron Company											
Richmond No. 3,	Dickson City,	95,428	84,825	181.80	191	1	2	2,216	10	13	1
Richmond No. 4,	Fell township,	177,418	140,043	228.40	254	1	2	4,375	4	32	.....
Total and averages,		272,846	224,868	205.10	445	2	4	6,491	14	45	1
Mt. Jessup,	Winton borough,	116,365	105,891	213.60	383	2	7	5,172	18	38	2
Lackawanna,	Olyphant,	287,596	284,135	245.80	561	1	.....	8,221	27	80	1
Pancoast,	Throop,	224,092	221,488	210.00	660	1	7	9,611	24	76	.....
Simpson,	Fell township,	190,518	178,954	150.80	483	.....	1	5,648	22	85	3
Edgerton,	Archbald,	173,839	163,440	142.30	382	1	5	5,193	9	46	3
Ontario,	Peckville,	173,395	165,701	168.40	447	1	4	7,857	18	46	4
Sterrick Creek,	Peckville,	156,013	147,963	137.50	560	.....	1	6,944	18	30	2
Jones, Simpson & Co.,	Archbald,	289,379	243,216	192.00	682	2	2	9,640	20	65	3
Blue Ridge,	Peckville,	154,199	153,719	175.20	484	.....	4	8,306	14	41	2
Moosic Mountain	Marshwood,	120,888	111,388	183.00	198	1	5	5,000	10	22	1
Riverside,	Archbald,	74,091	69,091	114.20	278	.....	.....	3,015	9	31	.....
Murrays,	Dunmore,	50,096	45,485	221.25	74	1	1	2,248	5	14	.....
Dolph,	Winton borough,	109,937	107,114	121.75	437	1	.....	4,114	5	4	1
John Jermyn,	Priceburgh,	134,100	132,257	183	601	6	6	6,115	24	67	.....
Waddell,	Winton,	21,089	19,289	162	108	1	3	1,054	5	4	.....
New Elk Creek,	Fell township,	6,132	5,157	63	71	.....	.....	128	2	6	.....
Russell B.,	Fell township,	1,800	1,500	27	46	.....	.....	50	1	5	.....
		2,283,529	2,155,788	.....	6,565	18	46	88,316	232	651	21

Recapitulation. TABLE No. 2.—Continued.

Names of Collieries.	Location.	Total production in tons of coal.	Total Shipment in tons of coal.	Number of days worked.	Number of persons employed.	Number of fatal accidents.	Number of non fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.
Delaware and Hudson Canal Company,		2,403,385	2,382,784	218.84	5,371	13	32	71,177	182	577	3
Delaware, Lackawanna and Western R. R. Co.,		463,015	436,036	192.9	1,062	2	11	15,840	22	120	3
Pennsylvania Coal Company,		247,138	237,830	147.87	683	.....	2	9,238	28	64	2
Hillside Coal and Iron Company,		840,904	780,431	167.52	2,156	4	26	29,400	75	211	5
Elk Hill Coal and Iron Company,		272,846	224,868	205.10	445	2	4	6,491	14	45	1
Miscellaneous coal companies,		2,283,529	2,155,788	174.86	6,555	18	46	88,316	232	651	21
Total and averages,		6,510,817	6,216,937	182.31	16,272	39	121	220,462	554	1,668	38

TABLE NO. 3.—*Showing the number of each class of employes at each colliery in the First Anthracite District during the year 1895.*

Names of Collieries.	Occupation of Persons Employed Inside.							Occupation of Persons Employed Outside.							Grand total, inside and outside.
	Inside foremen.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Door-boys and helpers.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All other company men.	Superintendents, book-keepers and clerks.	Total outside.	
Delaware and Hudson Canal Company.															
Leggetts Creek,	1	112	112	47	83	17	372	1	3	10	64	53	.. ....	133	505
Marvine,	1	114	114	38	79	15	361	1	3	10	56	52	.....	126	487
Eddy Creek,	2	120	120	62	65	8	377	1	6	8	49	36	.....	100	477
Olyphant No. 2,	1	104	110	35	47	29	326	1	4	12	51	45	.....	113	439
Grassy Island,	1	123	140	27	52	7	350	1	4	13	62	49	.....	129	479
White Oak,	2	168	117	20	52	7	366	1	3	6	97	100	.....	202	568
Jermyn No. 1,	1	184	172	46	33	23	459	1	2	9	56	43	.....	114	573
Powderly,	1	159	6	41	19	9	226	1	2	5	6	22	1	37	263
No. 3 shaft,	1	54	20	31	23	5	114	1	4	4	7	16	.....	32	146
No. 1 shaft,	2	160	41	26	41	11	281	1	4	3	7	33	1	49	330
Racket Brook,	.....	.....	.....	.....	.....	.....	.....	2	2	.....	28	33	1	65	65
Coal Brook,	3	257	107	93	52	17	529	1	3	8	100	105	.....	219	748
Clinton,	1	74	74	16	20	5	199	1	3	7	40	41	.....	92	291
Totals,	17	1,620	1,133	462	575	153	3,960	13	56	95	623	628	3	1,411	5,371
Delaware, Lackawanna and Western R. R. Co.															
Storrs, Nos. 1, 2 and 3,	3	275	278	97	108	18	779	1	10	24	170	76	2	283	1,062

TABLE NO. 3.—*Continued.*

Names of Collieries.	Occupation of Persons Employed Inside.							Occupation of Persons Employed Outside.							Grand total, inside and outside.
	Inside foremen.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Door-boys and helpers.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All other company men.	Superintendents, book-keepers and clerks.	Total outside.	
Pennsylvania Coal Company.															
No. 1 shaft,	2	115	84	13	27	4	245	1	.....	12	60	46	.....	119	364
Gypsy Grove,	1	102	90	9	30	11	243	1	2	8	33	32	.....	76	319
Totals,	3	217	174	22	57	15	488	2	2	20	93	78	.....	195	683
Hillside Coal and Iron Company.															
Clifford,	1	126	96	14	46	6	289	1	6	7	57	64	3	138	427
Forest City,	3	204	204	51	75	4	541	1	8	13	37	63	5	127	668
Keystone,	1	32	34	5	17	.....	89	1	2	2	19	13	2	39	128
Erie,	2	140	140	35	65	11	393	1	5	10	52	38	3	109	502
Glenwood,	2	112	116	33	43	12	318	1	5	13	58	33	3	113	431
Totals,	9	614	590	138	246	33	1,630	5	26	45	223	211	16	526	2,156
Elk Hill Coal and Iron Company.															
Richmond No. 3,	1	44	50	13	13	10	131	1	4	9	25	18	3	60	191
Richmond No. 4,	2	65	75	16	30	10	198	1	5	3	35	11	1	56	254
Totals,	3	109	125	29	43	20	329	2	9	12	60	29	4	116	445

Mt Jessup	2	88	82	28	21	4	225	2	7	9	82	50	8	158	383
Lackawanna	2	165	165	61	88	17	498	1	9	15	43	92	3	163	661
Pancoast	2	164	164	60	76	23	489	1	9	14	86	58	3	171	660
Simpson	2	121	97	23	51	15	309	2	9	14	73	71	5	174	483
Edgerton	2	100	94	17	39	10	262	2	9	6	64	34	5	120	382
Ontario	2	122	112	31	58	9	324	1	5	13	72	20	2	123	447
Sterrick Creek	4	150	160	29	49	12	404	2	8	7	86	50	3	156	560
Jones, Simpson & Co	2	234	189	32	76	18	551	1	7	18	58	45	2	131	682
Blue Ridge	2	147	138	19	39	8	353	1	5	9	90	24	2	131	484
Moosic Mountain	1	66	66	6	34	5	178	1	4	5	.....	8	2	20	198
Riverside	2	76	76	14	20	6	194	1	4	4	45	28	2	84	278
Murrays	1	17	17	4	10	3	52	1	1	3	8	8	1	22	74
Dolph	2	101	107	21	44	5	280	2	9	8	97	39	2	157	427
Jermyn, Nos. 3 and 4	1	113	148	101	35	14	412	1	9	20	84	73	2	189	601
Waddell	1	23	20	16	6	1	67	1	2	3	24	10	1	41	108
New Elk Creek	1	20	20	2	6	1	50	1	1	1	6	9	3	21	71
Russell B.	1	12	10	5	2	.....	30	1	2	2	6	3	2	16	46
S. V. White,*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pierce,*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mt. Vernon,*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Boyer,*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals	30	1,719	1,665	459	654	151	4,678	22	100	151	924	632	48	1,877	6,555
Grand totals	65	4,554	3,965	1,207	1,683	390	11,864	45	203	347	2,093	1,654	73	4,408	16,272

*Idle during the year.

TABLE NO. 4.—*List of fatal accidents that occurred in and about the mines of the First Anthracite District for the year ending December 31, 1895.*

Date of Accident	Name of Person.	Occupation.	Age.	Widow.	No. of Orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Feb. 11.	Friend Rush,	Footman,	23	....	....	Marshwood,	Lackawanna,	Killed by a descending carriage in some mysterious manner.
Feb. 16.	Charles Pritchard,	Miner,	36	1	2	Eddy Creek,	Lackawanna,	Fatally injured by a fall of bell rock at the face of a chamber, where he had gone to assist a fellow-miner to secure his place.
Feb. 23.	James Mills,	Driver,	19	..	....	Lackawanna,	Lackawanna,	Instantly killed by a mule which fell on him while it was being pulled backwards by cars at the foot of a slope.
Mar. 1.	Zedor Loboznski,	Miner,	35	1	2	Jermyn No. 4,	Lackawanna	Fatally injured by a fall of dividing rock; died on the following day.
Mar. 7.	John Lubosk,	Laborer,	45	....	....	Mt. Jessup,	Lackawanna,	Instantly killed by a fall of rock.
Mar. 11.	William Campbell,	Pumpman,	60	1	7	No. 3 shaft,	Lackawanna,	Instantly killed by slipping against a fly wheel in a pump room.
Mar. 22.	Edward O'Hara,	Runner,	21	....	....	Olyphant, No. 2,	Lackawanna,	Instantly killed by flying coal from a shot which blew through a pillar.
Mar. 28.	Joseph Kolock,	Laborer,	38	1	5	Glenwood,	Lackawanna,	Instantly killed by flying coal from a shot which blew through a pillar.
Mar. 28.	Michael Fetzko,	Loader,	30	1	2	Mt. Jessup,	Lackawanna	Fatally injured by a gondola car passing over his legs, while employed under the breaker.
April 29.	Peter Noone,	Miner,	40	1	7	Richmond No. 3,	Lackawanna,	Instantly killed by a fall of slab, six inches thick at the center, tapering to a thin edge on each side, and about eight feet square.
May 11.	Bonafal Nottho,	Laborer,	34	1	3	Jones-Simpson,	Lackawanna,	Instantly killed by a fall of "six-inch," at the face of a breast.
May 24.	John Burnett,	Miner,	36	1	3	Storrs No. 1,	Lackawanna,	Instantly killed by a fall of rock at the face of a breast.
May 24.	John Duffy,	Laborer,	52	....	....	Edgerton,	Lackawanna,	Fatally injured by a fall of rock in a breast wherein he was employed; died on the following day.
May 29.	Frank Gemeada,	Driver,	17	....	....	Forest City,	Lackawanna,	Instantly killed by falling under a loaded car while it was being hauled out of a chamber.
June 19.	John Hampliski,	Miner,	48	1	2	Jermyn No. 3,	Lackawanna,	Fatally injured by a fall of dividing rock; died on the following day.

June	19,	George Heabrand,	Driver,	19			Jermyn No. 3,	Lackawanna,	Run over by an empty car to which his team of mules was hitched; the pinion wheel of an engine broke and the cars got away on the slope.
June	21,	Robert Nicholson,	Switch tender,	20			Jermyn No. 1,	Lackawanna,	Fatally injured by being struck by a trip of empty cars as they were going into the branch from the slope; he died on the 25th.
June	25,	Peter Kline,	Miner,	53	1	3	Storrs No. 1,	Lackawanna,	Fatally injured by a fall of rock and bone; died on his way home.
June	27,	Patrick Garman,	Laborer,	23			Clinton,	Lackawanna,	Instantly killed by a fall of rock at the face of the chamber in which he was employed.
July	12,	Paul Rozonski,	Laborer,	26			Sturges,	Lackawanna,	Instantly killed by a fall of roof.
July	15,	Thomas Wronski,	Laborer,	26			Olyphant No. 2,	Lackawanna,	Fatally injured by a fall of rock near the face of chamber in which he was employed.
July	23,	Griffith Reese,	Driver,	16			Jones-Simpson,	Lackawanna,	Fatally injured by falling under a trip of loaded cars.
Aug.	14,	William Jellick,	Laborer,	30			Marvine,	Lackawanna,	Fatally injured by a fall of top rock while shoveling coal at the face of a breast.
Aug.	20,	Michael Shernono,	Laborer,	25			Jermyn No. 1,	Lackawanna,	Instantly killed by a fall of top coal while throwing coal back to load a car.
Aug.	30,	Thomas Indian,	Laborer,	21			Pancoast,	Lackawanna,	Back broken by a fall of roof; died a month afterwards.
Oct.	2,	Patrick Reedy,	Miner,	44	1	4	Erie,	Lackawanna,	Instantly killed by a fall of "fourteen-inch" and rock at the face of a gangway that he was driving.
Oct.	5,	Thomas Brown,	Coal operator,	47	1	4	Murray,	Lackawanna,	Instantly crushed to death by a fall of rock.
Oct.	12,	Michael Fritsch,	Carpenter,	52	1		Richmond No. 4,	Lackawanna,	Fell into culm chute and was suffocated.
Oct.	12,	Joseph Ustack,	Miner,	47	1		Johnson No. 2,	Lackawanna,	Instantly killed by a shot which blew through a pillar.
Oct.	12,	Stephen Deitz,	Laborer,		1		Johnson No. 2,	Lackawanna,	Fatally injured by flying coal from a shot which blew through a pillar.
Oct.	17,	James McHale,	Laborer,	25			Eddy Creek,	Lackawanna,	Instantly killed by a fall of rock.
Oct.	25,	Alick Mezrick,	Laborer,	24	1	1	Grassy Island,	Lackawanna,	Instantly killed by flying coal from a blast.
Oct.	28,	Martin Morse,	Miner,	32	1	1	Clifford,	Susquehanna,	Instantly killed by a fall of top coal at the face of the chamber in which he was working.
Nov.	11,	Peter Maunton,	Laborer,	20			White Oak,	Lackawanna,	Fatally injured by falling off the rear car of a trip, and being struck by a car that was coming after it.
Nov.	13,	Joseph Sivock,	Miner,	29	1	2	Dolph,	Lackawanna,	Instantly killed at the face of his chamber by a fall of rock.
Nov.	15,	Christ Severs,	Miner,	45		6	Waddell,	Lackawanna,	Instantly killed at the face of his chamber by a fall of rock.
Nov.	16,	Richard Johnston,	Door-tender,	68		3	Marvine,	Lackawanna,	Instantly killed by being struck by a runaway car.
Nov.	25,	Patrick Campbell,	Miner,	28	1	1	Johnston No. 2,	Lackawanna,	Fatally injured by a fall of rock which he and his laborer had been trying to pull down but a short time before.
Dec.	4,	Edward Holmes,	Driver,	19			Leggetts Creek,	Lackawanna,	Fatally injured by a kick from a mule; died on the following day.

TABLE No. 5.—*List of non-fatal accidents that occurred in and about the mines of the First Anthracite District for the year ending December 31, 1895.*

Date of Accident.	Name of Person.	Occupation.	Age.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 3,	Jacob Shimn,	Miner,	26	Clifford,	Forest City, Susq.,	Side injured by a fall of bone.
Jan. 3,	John Jegon,	Laborer,	23	Clifford,	Forest City, Susq.	Hip dislocated by the same fall.
Jan. 10,	John Armson,	Miner,	54	Marvine,	Scranton, Lack.,	Injured on body by falling from a car and being squeezed by it.
Jan. 18,	Eli Weeks,	Miner,	48	Richmond No. 3,	Scranton, Lack.,	Seriously injured by a fall of rock.
Jan. 20,	M. Hoslofski,	Laborer,	37	Jermyn No. 4,	Priceburgh, Lack.,	Injured by a fall of rock at the face of the chamber in which he was working.
Jan. 22,	Peter Boltzer,	Miner,	38	Marshwood,	Marshwood, Lack.,	Badly burned on face, breast and arms by an explosion of powder, which occurred while he was trying to force a cartridge into a drill-hole that was too small for it.
Jan. 24,	Peter Smith,	Miner,	32	Marvine,	Scranton, Lack.,	Severely injured by the premature explosion of a blast.
Jan. 28,	Michael Cox	Miner,	45	Storrs No. 3,	Scranton, Lack.,	Leg fractured by a fall of roof.
Jan. 30,	Owen Rowlands,	Miner,	57	Blue Ridge,	Peckville, Lack.,	Compound fracture of leg by a fall of roof.
Jan. 31,	Michael Walsh,	Miner,	51	Leggetts Creek,	Scranton, Lack.,	Injured on body by a fall of roof.
Feb. 1,	John Williams	Laborer,	19	Leggetts Creek,	Scranton, Lack.,	Left arm severely injured and hip dislocated by a large piece of coal rolling against him.
Feb. 2,	Thomas Dean	Door-boy,	19	Pancoast,	Throop, Lack.,	Thigh fractured by being knocked down by a mule.
Feb. 12,	Patrick McAndrew,	Miner,	35	Powderly,	Carbondale, Lack.,	Hip and back severely bruised by a fall of roof, which occurred while he was in the act of working out a shot.
Feb. 16,	Anthony McChuck,	Miner,	40	Clifford,	Forest City, Susq.,	Slightly injured by a fall of rock while barring out some coal after a shot.
Feb. 18,	Henry Marton,	Miner,		Waddell,	Winton, Lack.,	Burned on face by the premature explosion of a blast.
Feb. 21,	Thomas Jones,	Driver,	16	Storrs No. 1,	Dickson, Lack.,	Leg fractured by cars passing over it.
Feb. 25,	William Hopkins,	Runner,	19	Leggetts Creek,	Scranton, Lack.,	Thumb mashed by being caught between two bumpers.
Feb. 27,	Frank Mecalick,	Miner,	37	Jermyn No. 4,	Priceburgh, Lack.,	Leg fractured by a fall of rock in his chamber.
Feb. 27,	John Gush,	Laborer,	26	Jermyn No. 4,	Priceburgh, Lack.,	Both legs injured by a fall of rock.
Feb. 28,	Adam Paizinski,	Laborer,	40	Jermyn No. 4,	Priceburgh, Lack.,	Hips injured by a fall of rock.
Mar. 7,	Mike Olarnie,	Miner,	33	Mt. Jessup,	Winton Lack.,	Injured by a fall of rock on a gangway.

Mar.	7,	James Mangle,	Breakerman	50	Raymond,	Archbald, Lack.,	Severely injured by being caught in breaker machinery.
Mar.	8,	John Morgan,	Miner,	50	Leggetts Creek,	Scranton, Lack.,	Hand and back burned by an explosion of powder.
Mar.	9,	August Masura,	Miner,	32	Ontario,	Peckville, Lack.,	Seriously injured by a fall of rock at the face of his chamber.
Mar.	19,	Andrew Stecko,	Laborer,	42	Marshwood,	Marshwood, Lack.,	Injured on back by a fall of rock.
Mar.	21,	John Roman,	Laborer,	29	Clifford,	Forest City, Susq.,	Injured on back by a fall of rock.
Mar.	21,	Harry Karmarshock,	Laborer,	27	Simpson,	Fell twp., Lack.,	Injured on back by a fall of rock.
Mar.	26,	Simon Ushock,	Footman,	23	Grassy Island,	Olyphant, Lack.,	Hand cut by a piece of coal falling down a shaft.
Mar.	26,	Floyd Davis,	Oiler,	15	Marshwood,	Marshwood, Lack.,	Arm fractured by coal flying from a runaway car on the slope, caused by drawhead pulling out as the car was being twisted.
April	10,	Anthony Wallace,	Miner,	30	Forest City,	Susquehanna,	Injured by a fall of rock.
April	10,	John Dobinski,	Laborer,	30	Forest City,	Susquehanna,	Injured by a fall of rock.
April	13,	Albert Osmond,	Laborer,	18	Eddy Creek,	Lackawanna,	Arm fractured by being caught by car.
April	16,	Frederick Kelley,	Runner,	20	Richmond No. 4,	Lackawanna,	Injured by being struck by sprag bar.
April	18,	Lewis Lewis,	Miner,	61	Storrs No. 1,	Lackawanna,	Shoulder dislocated and three ribs broken by a fall of coal.
April	19,	David Lewis,	Laborer,	32	Storrs No. 1,	Lackawanna,	Seriously burned on face, head, arms and hands by an explosion of gas.
April	22,	Andrew Rugulla,	Miner,	22	Mt. Jessup,	Lackawanna,	Burned on face and hands by an explosion of gas.
April	22,	Michael Cerkoski,	Miner,	41	Mt. Jessup,	Lackawanna,	Burned by same explosion of gas.
April	22,	Adam Romanchuck,	Miner,	40	Pancoast,	Lackawanna,	Severely injured by a fall of rock.
April	22,	Anthony McGuire,	Runner,	16	Coal Brook,	Lackawanna,	Injured by being dragged on the ground by a mule. He was caught in the trace while trying to get on the mule's back.
April	26,	Jacob Lacovage,	Laborer,	32	Forest City,	Lackawanna,	Badly injured by a fall of rock.
May	8,	Andrew Meeks,	Laborer,	30	Forest City,	Susquehanna,	Back bruised by falling under a car.
May	9,	Oliver Simpson,	Footman,	21	Pancoast,	Lackawanna,	Foot bruised and toes fractured by being caught between two cars.
May	9,	William Bell,	Track layer,	49	Waddell & Son,	Lackawanna,	Leg bruised by flying coal from a shot.
May	9,	John Coppin,	Runner,	24	Sturges,	Lackawanna,	Bruised by being squeezed between car and rib.
May	17,	Robert Rallston,	Teamster,	50	Clifford,	Susquehanna,	Arm fractured by falling in breaker.
May	17,	John Turks,	Miner,	30	Ontario,	Lackawanna,	Leg fractured by a fall of fire clay.
May	27,	William Taylor,	Engineer,	27	Forest City No. 2,	Lackawanna,	Arm fractured by being caught between cars
May	28,	Michael Talabos,	Laborer,	29	Mt. Jessup,	Lackawanna,	Scalp severely cut by a fall of coal.
May	29,	Michael Walsh,	Laborer,	27	Murrays,	Lackawanna,	Bruised by flying coal from a shot which blew through a pillar.
June	4,	James Winch,	Miner,	29	Marshwood,	Lackawanna,	Face and back cut by a fall of roof
June	11,	Waldo Bunamont,	Miner,	30	Mt. Jessup,	Lackawanna,	Severely injured by a fall of roof.
June	11,	Valentine Zabroski,	Laborer,	26	Mt. Jessup,	Lackawanna,	Severely injured by a fall of roof.
June	21,	John Best,	Miner,	28	Eddy Creek,	Lackawanna,	Foot crushed by a fall of top coal.
June	24,	Peter Dobinski,	Miner,	29	Blue Ridge,	Lackawanna,	Severely injured by a shot that blew through a pillar.
June	24,	Michael Shanley,	Driver,	17	Sterrick Creek	Lackawanna,	Badly bruised by falling under an empty car.
July	8,	George Smith,	Pumpman,	17	Marvine,	Lackawanna,	Burned on hands and face by explosion of gas.
July	8,	Theodore Shatto,	Pumpman,	32	Marvine,	Lackawanna,	Burned on hands and face by explosion of gas.
July	10,	John Arkski,	Laborer,	27	Ontario,	Lackawanna,	Severely injured on head and hands by flying coal from a shot which blew through a pillar.
July	11,	John Martin,	Laborer,	25	Edgerton,	Lackawanna,	Skull fractured by a kick from a mule.
July	12,	Owen Larkin,	Miner,	47	Erie,	Lackawanna,	Ankle fractured by a slab of rock from the "gob" sliding against it.

TABLE NO. 5.—*Continued.*

Date of Accident.	Name of Person.	Occupation.	Age.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
July 12,	Ulick Sokofski,	Laborer,	32	Jermyn No. 3,	Lackawanna,	Leg fractured by a fall of roof.
July 12,	Andrew Nichol,	Miner,	37	Pancoast,	Lackawanna,	Burned on face and hands by explosion of gas.
July 12,	Stanley Pakerski,	Laborer,	54	Pancoast,	Lackawanna,	Burned on face and hands by explosion of gas.
July 17,	Anthony Feeney,	Miner,	30	Glenwood.	Lackawanna,	Face and hands burned by an explosion of a charge of powder.
July 17,	Peter Martin,	Laborer,	24	Glenwood,	Lackawanna,	Burned by the same cause.
July 20,	Anthony Hoakman,	Laborer,	47	Clifford,	Susquehanna,	Leg injured by a fall of bony coal.
July 23,	Michael Parcell,	Driver,	16	Jermyn No. 3,	Lackawanna,	Kicked by a mule.
July 25,	Anthony Conturer,	Laborer,	22	Mt. Jessup,	Lackawanna,	Foot very badly crushed by a fall of roof.
Aug. 3,	Joseph Friday,	Laborer,	25	Olyphant No. 2,	Lackawanna,	Leg fractured by a fall of coal.
Aug. 22,	Elmer Seeley,	Oiler,	17	Forest City,	Susquehanna,	Leg bruised by being caught between cars.
Sept. 2,	Frank Walker,	Waterman,	23	Forest City,	Susquehanna,	Foot bruised by falling and being caught by motor.
Sept. 4,	Trevor Williams,	Miner,	54	Blue Ridge,	Lackawanna,	Leg fractured by a fall of rock.
Sept. 5,	Patrick Heffron,	Miner,	35	Grassy Island,	Lackawanna,	Burned on hands and face by powder.
Sept. 5,	Thomas Philbin,	Laborer,	30	Grassy Island,	Lackawanna,	Burned on hands and face by powder.
Sept. 12,	Silas Smith,	Driver,	16	No. 1 shaft,	Lackawanna,	Arm nearly taken off by cars passing over it; also cut on leg.
Sept. 16,	Thomas Hennesy,	Miner,	32	Forest City,	Lackawanna,	Seriously injured on back by a fall of rock.
Sept. 17,	George Roberts,	Switchman,	21	Edgerton,	Lackawanna,	Leg fractured and crushed by being squeezed between cars.
Sept. 23,	Thomas Coleman,	Driver,	15	Storrs No. 1,	Lackawanna,	Leg fractured while trying to stop a car.
Sept. 23,	Clinton Buchanan,	Driver,	20	Storrs No. 3,	Lackawanna,	Ribs fractured by a fall of rock.
Sept. 26,	John Papranck,	Laborer,	33	Edgerton.	Lackawanna,	Leg cut off by a fall of rock.
Sept. 26,	James Watkiss,	Miner,	42	Storrs No. 1,	Lackawanna,	Burned on body, face and hands by exploding gas.
Sept. 26,	Stanley Brekuski,	Laborer,	22	Storrs No. 1,	Lackawanna,	Burned same as above, by same explosion.
Oct. 7,	Anthony Kotuckie,	Laborer,	56	Richmond No. 3.	Lackawanna,	Painfully injured by a fall of rock.
Oct. 9,	John Corden,	Driver,	15	Coal Brook,	Lackawanna,	Leg fractured by being thrown from a mule.
Oct. 9,	Charles Crostillo,	Laborer,	23	Waddell,	Lackawanna,	Back injured by a fall of rock.
Oct. 10,	Joseph Bosnell,	Miner,	40	Clifford,	Susquehanna,	Severely injured on face by the premature explosion of a blast, caused by trying to force a charge of powder into a hole that was too small for it.
Oct. 10,	John Scovey,	Laborer,	26	Clifford.	Susquehanna,	Injured by the same explosion as Bosnell.
Oct. 11,	Bernard Strumbus,	Miner,	27	Clifford,	Susquehanna,	Ankle fractured by a fall of rock.

	Oct.	15,	George Dennis,	Miner,	....	Wilson Creek,	Lackawanna,	Severely injured on face, causing the loss of one eye; cause, forcing powder with an iron tamping bar into a hole that was too small for the charge.
	Oct.	15,	William Dennis,	Miner,	....	Wilson Creek,	Lackawanna,	Injured by the same cause.
	Oct.	15,	William Welch,	Miner,	....	Wilson Creek,	Lackawanna,	Back injured by a fall of roof at face of breast.
	Oct.	16,	Patrick Dempsey,	Miner,	38	Eddy Creek,	Lackawanna,	Leg fractured; was caught between car and prop.
	Oct.	16,	John Long,	Laborer,	26	Jermyn No. 1,	Lackawanna,	Leg fractured by being struck by car when it jumped the track.
	Oct.	18,	Patrick Fingan,	Runner,	17	Leggetts Creek,	Lackawanna,	Seriously injured by being squeezed between two cars.
	Oct.	25,	Stephen Gokosky,	Laborer,	23	Grassy Island,	Lackawanna,	Leg fractured by flying coal from a blast.
	Oct.	26,	Frank Grabosky,	Miner,	30	Pancoast,	Lackawanna,	Injured on body by a fall of bony coal.
	Nov.	2,	John Herman,	Runner,	20	Edgerton,	Lackawanna,	Seriously injured on head and body by a fall of what is known as "six inch."
	Nov.	6,	Michael Garguski,	Miner,	25	Blue Ridge,	Lackawanna,	Leg fractured by a fall of coal and rock at the face of his chamber.
	Nov.	7,	John Kavish,	Driver,	17	Pancoast,	Lackawanna,	Leg fractured by falling under a car.
	Nov.	7,	James Kakgill,	Miner,	37	Storrs No. 1,	Lackawanna,	Leg fractured by a fall of rock.
	Nov.	11,	Thomas Cox,	Door-tender,	15	Storrs No. 3,	Lackawanna,	Kicked on the face by a mule.
	Nov.	11,	Anthony Oglesby,	Miner,	40	Marshwood,	Lackawanna,	Head and face cut by flying coal from a shot.
	Nov.	12,	Thomas Cox,	Miner,	43	Richmond No. 4,	Lackawanna,	Painfully injured by a fall of rock.
	Nov.	15,	Thomas Welsh,	Slate picker,	12	Gypsy Grove,	Lackawanna,	Leg and foot mashed by being caught in the screen while pushing down some coal in a chute.
	Nov.	22,	John Ready,	Laborer,	22	Grassy Island,	Lackawanna,	Hand crushed by a small fall of rock.
	Nov.	22,	George Ready,	Laborer,	24	Grassy Island,	Lackawanna,	Foot slightly injured by same fall.
	Nov.	23,	John Ourbon,	Laborer,	38	Erie,	Lackawanna,	Leg fractured by a fall of rock.
	Nov.	23,	George Hogart,	Driver,	17	Forest City,	Lackawanna,	Ankle fractured by car jumping the track.
	Nov.	29,	Joseph Sisolack,	Laborer,	42	Storrs No. 1,	Lackawanna,	Leg fractured by a fall of bony coal.
	Nov.	30,	John Bilko,	Miner,	30	Forest City,	Lackawanna,	Painfully injured on body by a fall of what is known as a "bell."
	Dec.	2,	Edwin Smith,	Miner,	50	Grassy Island,	Lackawanna,	Arm fractured by a piece of coal falling down a shaft and striking him.
	Dec.	2,	Thomas Hodgson,	Miner,	52	Grassy Island,	Lackawanna,	Head injured by the same piece of coal.
	Dec.	5,	Charles Smith,	Driver,	14	Jones-Simpson,	Lackawanna,	Seriously injured by falling under a car.
	Dec.	7,	George Staffund,	Laborer,	35	Edgerton,	Lackawanna,	Ribs fractured by a fall of rock.
	Dec.	9,	Joseph Green,	Driver,	14	Leggetts Creek,	Lackawanna,	Seriously injured from a kick by a mule.
	Dec.	11,	Frank Siddons,	Slate picker,	13	White Oak,	Lackawanna,	Skull fractured by being squeezed between the bumper of a culm car and sill.
	Dec.	11,	John Davis,	Miner,	53	Glenwood,	Lackawanna,	Injured on body by a fall of rock.
	Dec.	11,	Frank Chicklosky,	Laborer,	26	Glenwood,	Lackawanna,	Leg fractured and arm cut by a fall of rock.
	Dec.	11,	Henry Evans,	Miner,	56	Forest City,	Lackawanna,	Head badly cut by a fall of rock.
	Dec.	21,	William Knuckley,	Driver,	14	Olyphant No. 2,	Lackawanna,	Leg fractured by falling under a car.
	Dec.	21,	Amos Knighton,	Miner,	30	Eddy Creek,	Lackawanna,	Face and hands burned by an explosion of powder.

SECOND ANTHRACITE DISTRICT.

(LACKAWANNA COUNTY.)

Scranton, Pa., April 8, 1896.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: In compliance with the law regulating the presentation of the annual reports of mine Inspectors, I have the honor of herewith transmitting that of the Second Anthracite District, for the year ending December 31, 1895.

We have been particularly fortunate in having a very material percentage of decrease in fatal accidents to report from those of the preceding year, while the tonnage is practically the same. The total quantity of coal mined and prepared at the various collieries during the year was 6,189,495.18 tons, of which 5,613,174.4 tons were shipped, 334,296.75 tons consumed at the mines and 242,024.75 tons sold to local purchasers. From this data it is ascertained that a life was lost for every 182,044 tons of coal mined, there having been 34 fatal accidents, leaving 22 wives widows and 72 orphans. The number of non-fatal accidents during the same period was 192.

I have followed the text of the act as closely as I could interpret it in reference to data concerning this district which may be found in annexed tables and compilations.

A general and practical application of the mine rules and regulations is everywhere observed by operators and as a consequence our mines are in splendid condition. The health and safety of the men employed in and about the mines are well guarded while every precaution is taken that no violations of the mine law shall occur.

During the year two examinations of applicants for mine foremen and assistant foremen have been held at which 18 of the former and 6 of the latter were recommended as suitable persons to whom certificates should be issued. In conclusion, I remain,

Your obedient servant,

PATRICK BLEWITT,

Inspector Second Anthracite District.

TABLE No 1.—*List of accidents resulting in death reported to the Inspector of the Second Anthracite District now including a part of Lackawanna county, State of Pennsylvania, and their causes, as shown by his investigations, for the year ending December 31st, A. D. 1885.*

Date, 1885.	Names.	Age.	Nationality.	Occupation.	Killed.	Widows.	Orphans.	Colliery Where Accident Occurred.	Nature or Cause of Death.
Jan. 10,	Theodore W. Hale, ...	27	American, ...	Asst. mine foreman.	Killed, ...	....	....	Archbald colliery, outside, . .	Seriously injured; caught between front of a locomotive and flat car; "died a few minutes after."
Jan. 22,	Timothy Riley, ...	30	Irish, ...	Laborer, ...	Killed, ...	....	....	Von Storch slope, "Clark Vein," mine, ...	Killed; fall of top coal.
Jan. 30,	Noble Owiski, ...	25	Polish, ...	Laborer, ...	Killed, ...	....	....	Jermyn No. 2 shaft mine, ...	Killed; fall of rock.
Feb. 12,	James Corcoran, ...	32	Irish, ...	Miner, ...	Killed,	1	2	Dickson shaft mine, ...	Killed instantly by a piece of coal flying from a blast, striking him on the head.
Feb. 23,	John Connor, ...	29	Irish, ...	Shaft headman.	Killed,	1	...	West Ridge shaft and slope mine.	Killed instantly; fell down the shaft while in the act of removing platform from top of shaft.
Mar. 1,	Anthony Engades, ...	42	Polish, ...	Miner, ...	Killed,	1	4	Austin tunnel mine, ...	Killed; premature explosion of a blast.
Mar. 19,	David Beacham, ...	59	English, ...	Miner, ...	Killed,	1	10	Pyne shaft mine, ...	Killed; premature explosion of a blast.
April 2,	John Gaughan, ...	18	American, ..	Driver, ...	Died,...	....	....	Pine Brook shaft mine, ...	Injured; caught between car and door post in mines; died April 11.
April 30,	Joseph Laziensky, ...	22	Polish, ...	Laborer, ...	Died, ..	1	3	Bellevue shaft mine, ...	Seriously injured; fall of coal and roof; died ten minutes after.
May 4,	James McGee, ...	27	Irish, ...	Miner, ...	Killed,	1	3	Shaft No. 2, Old Forge mine,	Killed instantly; piece of rock that he was trying to pull down fell on him.
May 7,	Patrick Malia, ...	20	Irish, ...	Laborer, ...	Died, ..	....	....	Von Storch shaft mine, ...	Seriously injured; fall of top rock; died a short time after.
May 22,	Edward Lucker, ...	50	English, ...	Miner, ...	Killed,	1	8	Pine Brook shaft mine, ...	Killed; fall of roof.
May 24,	Thomas Caygill, ...	41	English, ...	Miner, ...	Killed,	1	....	Pine Brook shaft mine, ...	Killed; premature explosion of a blast.
June 14,	Patrick Malia, ...	35	Irish, ...	Laborer, ...	Killed,	1	3	Capouse shaft mine, ...	Killed; fall of coal and rock.
June 24,	Edward McGeever, ...	48	Irish, ...	Laborer, ...	Killed,	1	8	Shaft No. 5, Dunmore mine...	Killed; run over by a loaded car.
June 29,	Dominick Demargo, ...	30	Italian.	Laborer, ...	Killed,	1	...	Dickson shaft mine, ...	Killed; fall of rock roof.
July 9,	Peter Loftus, ...	30	Hungarian. .	Laborer, ...	Killed, ...	..		Dickson shaft mine, ...	Killed; fall of coal.
Aug. 24,	Charles Bolinski, ...	22	Polish, ...	Laborer, ...	Died,* .	....	....	Pine Brook shaft mine, ...	Seriously burned by explosion of loose powder in his box, which was ignited by a spark falling from his lamp.
Aug. 30,	William Handley, ...	48	Irish, ...	Miner, ...	Killed,	1	....	West Ridge shaft and slope mine.	Killed instantly; fall of roof.
Sept. 4,	Peter Ploveiko, ...	37	Hungarian. .	Laborer, ...	Killed,	1	2	Green Ridge slope mine, ...	Killed; fall of roof

Oct.	5,	Charles Williams, ...	21	Welsh, ...	Out. laborer,..	Died, ...	....	Lawrence drift mine, ...	Head seriously injured; caught between cars while in the act of uncoupling them at foot of plane.
Oct.	8,	Thomas McGee, ...	23	American, ...	Miner, ...	Died, ...	...	Diamond Tripp slope mine,..	Seriously injured internally; fall of roof; died next morning.
Oct.	11,	Patrick Rafter, ...	51	Irish, ...	Miner, ...	Killed, 1	7	Meadow Brook shaft mine, .	Killed; fall of roof.
Oct.	21,	Lawrence Flynn, ...	27	Irish, ...	Miner, ...	Killed, 1	.. .	Dickson shaft mine, ...	Killed instantly; fall of roof.
Oct.	22,	Richard Norton, ...	58	Irish, ...	Miner, ...	Killed, 1	..	Hyde Park shaft mine, ...	Killed; fall of rock.
Nov.	9,	Nicholas Pron, ...	28	Polish, ...	Laborer, ...	Killed, ...	...	Sloan Central shaft mine, . ..	Killed; fall of top coal.
Nov.	18,	James Kelly, ...	55	Irish, ...	Miner, ...	Died, .. 1	4	Sloan Central shaft mine, ...	Seriously injured; left arm fractured and four ribs broken; fall of bony coal; died on the 21st.
Nov.	30,	Ludwig Karkoski, ...	25	Polish, ...	Laborer, ...	Killed, 1	9	Meadow Brook shaft mine, ..	Killed; fall of rock.
Dec.	2,	Mike Ropshop, ...	23	Polish, ...	Miner, ...	Killed, ...	.. .	Wm. A. shaft mine, ...	Killed; fall of roof.
Dec.	4,	John Seecoffskie, ...	50	Polish, ...	Miner, ...	Killed, 1	...	Hyde Park shaft mine, ...	Killed; fall of roof.
Dec.	5,	Joseph McDonald, ...	13	Irish, ...	Oiler, ...	Died, ...	....	Nay Aug tunnel mine, ...	Leg fractured below the knee; fell between cars outside; died 3 o'clock A. M. on the 7th.
Dec.	7,	Jos. Kloschinski, ...	52	Polish, ...	Miner, ...	Died, .. 1	1	Lawrence tunnel mine, ...	Back broken, five ribs fractured and dislocated hip; fall of roof; died 12 hours after.
Dec.	11,	Hugh Brawley, ...	30	Welsh, ...	Laborer, ...	Died, .. 1	2	Shaft No. 1, Old Forge mine	Seriously injured; fall of soap stone; died shortly after.
Dec.	17,	John Mesenko, ...	30	Hungarian, ..	Laborer, ...	Died, .. 1	1	Spencer's shaft mine, ...	Killed; fall of rock; wife and one child in Europe.

Total fatal accidents, . . . 34
Total number of widows, . . 22
Total number of orphans, . . 72

*Died September 5th.

TABLE NO. 2.—*List of serious non-fatal accidents reported to the Inspector of the Second Anthracite District, now including a part of Lackawanna county, State of Pennsylvania, and their causes as shown by his investigation, for the year ending December 31st, A. D. 1895.*

Date, 1895.		Names.	Age.	Nationality.	Occupation.	Colliery Where Accident Occurred.	Nature of Accident.
Jan.	5,	Joseph Bigger,	27	Hungarian,	Laborer,	Jermyn No. 2 shaft mine,	Slightly injured; fall of roof.
	5,	Patrick Hughes,	17	Irish,	Driver,	Hyde Park shaft mine,	Slightly injured; caught between car and rib.
	5,	James Henahan,	34	Irish,	Miner,	Bellevue slope mine,	Large bone of leg fractured by fall of slate.
	8,	Edward E. Davis,	16	Welsh,	Runner,	Continental shaft mine,	Thigh fractured; mule fell and squeezed him between car and rib.
	8,	Aleck Stanoske,	35	Polish,	Miner,	Greenwood No. 2 shaft mine,	Face and hands slightly burned by an explosion of gas.
	9,	Stephen Layeski,	39	Polish,	Miner,	Austin drift mine,	Back slightly injured by a fall of rock.
	10,	William Morgan,	28	American,	Prop cutter,	Archbald shaft mine,	Thigh fractured; caught between front of locomotive and flat car.
	15,	Edward Gleason,	43	American,	Miner,	Continental shaft mine,	Right collar bone fractured and neck injured; caught by end of iron rail.
	17,	Michael Cawley,	23	American,	Laborer,	Greenwood No. 1 shaft mine,	One bone of right leg fractured; caught between large car and platform of breaker.
	18,	William Sullivan,	55	Irish,	Company man,	Pyne shaft mine,	Six ribs fractured and severely bruised; fell under loaded cars in mines.
	24,	David Davis,	38	Welsh,	Rockman,	Diamond shaft mine,	Head and face seriously injured by premature explosion of a blast.
	25,	Lewis Moser,	48	American,	Miner,	Hyde Park shaft mine,	Leg fractured and back slightly injured; fall of bony coal.
	28,	Michael McAndrew,	31	Irish,	Miner,	Hyde Park shaft mine,	Arm slightly burned by an explosion of loose powder which he was handling.
	28.	Mike Beanage,	22	Hungarian,	Company laborer,	Austin drift mine,	Foot badly bruised about the ankle; caught between bumpers of cars at head of breaker.
	28,	Benjamin Allgood,	32	American,	Miner,	Mount Pleasant shaft mine,	Injured on neck and left shoulder; fall of top coal.
Feb.	1,	James Dolan,	18	American,	Slate picker,	Von Storch breaker mine,	Arm seriously bruised; caught between screens and protecting boards in breaker.
	2,	Steve Boochanski,	21	Polish,	Laborer,	Dodge shaft mine,	Right leg fractured above the knee; a piece of coal rolled on it.
	2,	Edward McAndrews,	18	American,	Runner,	Austin drift mine,	Small bone of wrist fractured; caught between car and prop.
	4.	Patrick Walsh,	32	Irish,	Miner,	Pine Brook shaft mine,	Left leg fractured above the ankle; fall of roof.
	7,	William J. Thomas,	26	Welsh,	Miner,	Pyne shaft mine,	Head and back bruised and flesh wound on left thigh; falling roof.

	14,	Reuben Jones,	13	American,	Watchman,	Spencer's shaft, outside,	Burned about face, "not serious," by a boiler explosion.
	15,	Peter Gedda,	18	Polish,	Culm driver,	Jermyn No. 1 shaft mine,	Foot crushed; wheel of culm car on plane ran on it.
	16,	John Igoe,	42	Irish,	Miner,	Mount Pleasant shaft mine,	Left leg fractured above the knee; fall of bone coal.
	18,	John O'Connor,	45	Irish,	Miner,	Bellevue shaft mine,	Head and hand seriously burned; explosion of gas.
	19,	Hugh McShane,	45	Irish,	Laborer,	West Ridge slope mine,	Left leg fractured and scalp wound on head; fall of roof.
	20,	James Bryden,	58	Scotch,	Miner,	No. 5 shaft, Dunmore mine,	Injured on stomach and hips; fall of coal.
	22,	Mike Fadlale,	46	Polish,	Miner,	Austin drift mine,	Right leg fractured above the ankle; fall of rock roof.
	22,	Edward Jones,	46	Welsh,	Miner,	Sloan shaft mine,	Right arm fractured at elbow and bruised about face and body by premature blast.
	26,	Nicholas Corrish,	32	Irish,	Miner,	Pine Brook shaft mine,	Injured; struck by a flying piece of coal from a blast.
	27,	Patrick McGerry,	55	Irish,	Miner,	Green Ridge slope mine,	Injured by a premature explosion of a blast.
	28,	Henry Macinder,	39	English,	Miner,	Jermyn No. 1 shaft mine,	Leg fractured; a piece of coal from rib fell on it while he was working under the coal.
	28,	John Early,	40	Irish,	Water bailer,	Cayuga shaft mine,	Leg fractured below the knee; caught between car and prop.
Mar.	1,	Benjamin Gerganski,	24	Polish,	Laborer,	Austin tunnel mine,	Slightly injured by premature explosion of a blast.
	1,	Patrick O'Neil,	20	Irish,	Driver,	Greenwood No. 1 shaft mine,	Slightly injured about the body; caught between roof and top of car.
	9,	Martin O'Donnell,	19	American,	Runner,	Spencer's shaft mine,	Two fingers cut off; caught between top of car and roof.
	9,	James R. Lewis,	50	Welsh,	Miner,	Manville shaft mine,	Arm, side and hip injured; fall of rock.
	13,	Watkin Mathews,	40	Welsh,	Miner,	Manville shaft mine,	Hands and face badly burned; a cartridge exploded in his hands.
	19,	Michael Walsh,	22	American,	Laborer,	Manville shaft mine,	Hand badly hurt by being struck by a pick.
	21,	John Oileskey,	28	Polish,	Laborer,	Hampton shaft mine,	Thigh fractured by a fall of roof.
	21,	Frank Emerick,	35	Polish,	Laborer,	Lawrence tunnel mine,	Leg fractured below the knee; a piece of coal caught it against the bumper of a car.
	27,	Anthony Durkin,	18	American,	Driver,	Manville shaft mine,	Head slightly injured by being caught between cars.
	29,	James Tighe,	38	Irish,	Laborer,	Bunker Hill tunnel mine,	Hips slightly injured; fall of rock.
April	4,	Fred Spraigler,	32	German,	Miner,	Bellevue shaft mine,	A blast discharged two props, and while in the act of restanding them a mass of bony coal fell, cutting and bruising them, but not seriously.
	4,	Benjamin Jenkins,	28	Welsh,	Miner,	Bellevue shaft mine,	
	8,	Michael Kane,	20	Irish,	Driver,	Greenwood No. 2 shaft mine,	Several teeth knocked out by being kicked by a mule.
	9,	James Graham,	28	Irish,	Laborer,	Dodge shaft mine,	Thigh bone broken in two places and leg broken above the ankle by a fall of roof.
	10,	James McLane,	26	Irish,	Miner,	Von Storch slope mine,	Right leg fractured above the knee; fall of top rock.
	17,	Daniel Williams,	35	Welsh,	Laborer,	Diamond Tripp shaft mine,	Struck by a mine rail under the chin while using it as a lever to put car on track, severely injuring him.

TABLE NO. 2.—*Continued.*

Date, 1895.	Names.	Age.	Nationality.	Occupation.	Colliery Where Accident Occurred.	Nature of Accident.
April 17,	John Rememsky,	35	Polish,	Laborer,	West Ridge slope mine,	Back slightly injured; fall of slate roof.
24,	Thomas Nolan,	19	Irish,	Driver,	Cayuga shaft mine,	Foot crushed; caught in latch; ankle also injured.
May 1,	Patrick Malloy,	17	Irish,	Driver's helper,	Pine Brook shaft mine,	Bones of leg fractured; caught between bumpers of cars.
2,	Michael Milkowvictch,	30	Polish,	Laborer,	Von Storch slope mine,	Both legs crushed by being struck by a mine car on slope.
6,	Martin Mullen,	23	American,	Runner,	Dickson shaft mine,	Back slightly injured; fall of roof.
10,	Charles Herman,	16	Polish,	Driver,	National shaft mine,	Ankle injured by a car jumping the track and striking him.
10,	Frank Olinsky,	39	Polish,	Laborer,	Mount Pleasant shaft mine,	Left foot crushed; a piece of top coal fell on it; toes have been amputated.
10,	William Humphreys,	21	Welsh,	Footman,	Mount Pleasant shaft mine,	Leg fractured; bonnet of carriage fell on it.
14,	James Mulligan,	35	Irish,	Laborer,	Pine Brook shaft mine,	Back seriously injured; fall of roof.
14,	David Mathews,	24	Welsh,	Company laborer,	Wm. A shaft mine,	Arm cut off above elbow; caught between car and rib.
17,	Thomas McKenna,	36	Irish,	Miner,	Jermyn No. 1 shaft mine,	Slightly injured; fall of top coal.
21,	Mike McNulty,	16	American,	Outside driver,	Hyde Park shaft mine,	Leg bruised; fell under wheels of an empty car on culm dump.
22,	Joseph Comiski,	27	Polish,	Laborer,	Pine Brook shaft mine,	Slightly injured; fall of roof.
June 3,	Anthony Zabita,	24	Italian,	Laborer,	Pine Brook shaft mine,	Face and hands slightly burned; explosion of gas.
3,	James Fairfield,	40	English,	Miner,	Green Ridge slope mine,	These two men were slightly burned by an explosion of gas.
3,	Robert Gurr,	22	English,	Laborer,	Green Ridge slope mine,	
4,	John Johnson,	21	Swedish,	Laborer,	Hyde Park shaft mine,	Cut on right knee and several small cuts on face and body by a fall of roof.
7,	Patrick Murphy,	19	Irish,	Driver,	Tripp slope mine,	Two toes of left foot cut off by being run over by a car.
10,	John Brown,	39	English,	Miner,	Dickson shaft mine,	Head cut and body squeezed by a fall of roof.
10,	Adam Isckavezz,	28	Polish,	Laborer,	Dickson shaft mine,	Small bone of arm fractured by same fall.
11,	Andrew Buratz,	21	Hungarian,	Laborer,	West Ridge slope mine,	Leg fractured above the knee; fall of rock roof.
13,	Peter Welsh,	15	American,	Driver,	Greenwood No. 1 shaft mine,	Left leg fractured; fell off bumper of car under the wheels.

	14,	William Arch,	27	Polish,	Miner,	Jermyn No. 2 shaft mine,	All of these persons were burned by the explosion of a keg of powder; a spark from Wm. Arch's lamp fell into the keg while he was making a cartridge.
	14,	Michael Schokosky,	20	Polish,	Laborer,	Jermyn No. 2 shaft mine,	
	14,	Michael Tighe,	18	Irish,	Runner,	Jermyn No. 2 shaft mine,	
	14,	Michael Drimes,	16	Polish,	Driver,	Jermyn No. 2 shaft mine,	
	14,	Fred. Gardner,	18	English,	Driver,	Jermyn No. 2 shaft mine,	
	17,	James McHugh,	31	American,	Laborer,	Von Storch slope mine,	Leg fractured above the knee by a fall of top rock.
	17,	Anthony Dougher,	52	Irish,	Water bailer,	Von Storch slope mine,	Cap of knee dislocated; slipped and fell.
	20,	Peter Eagan,	19	American,	Team driver,	Taylor drift mine,	Leg fractured between knee and ankle; fell under a car.
	25,	John Sullivan,	18½	American,	Driver,	Archbald shaft mine,	Left arm fractured between shoulder and elbow by a fall of rock.
	28,	John Ryder,	32	Irish,	Miner,	Tripp Slope Diamond mine,	Head slightly injured by a fall of roof.
July	5,	John Pritchard,	25	Welsh,	Footman,	Continental shaft mine,	Hand mashed, no bones broken, by being caught between two cars.
	15,	John Gouchcaw,	25	Hungarian,	Driver,	Capouse colliery,	Collar bone fractured; fell off culm car.
	15,	Joseph Zelonzi,	30	Polish,	Miner,	Dodge shaft mine,	Hip dislocated and injured internally by a fall of black rock.
	15,	John Davis,	29	Welsh,	Miner,	Cayuga shaft mine,	Seriously injured by a premature explosion of a blast.
	19,	William Lobley,	58	English,	Miner,	Continental shaft mine,	Small bone of right leg fractured by a fall of slate.
	20,	George Robinson,	33	English,	Miner,	Shaft No. 5 Dunmore mine,	Back injured; fall of roof.
	23,	Antoni Bogenski,	34	Polish,	Miner,	Greenwood No. 1 shaft mine,	Hip dislocated by a fall of bony coal.
	26,	Andrew Rilley,	35	Irish,	Miner,	Dickson shaft mine,	Struck on back by a piece of coal flying from a blast.
	30,	Edward Boyle,	18	American,	Driver,	Meadow Brook shaft mine,	Leg fractured; fell off car.
Aug.	1,	August Stannhoff,	29	Polish,	Laborer,	Pine Brook shaft mine,	Leg fractured and face cut; fall of roof.
	2,	Martin Gillgallon,	49	Irish,	Miner,	Pine Brook shaft mine,	Burned on left side and on face by an explosion of gas.
	6,	John Philbin,	33	Irish,	Laborer,	Pine Brook shaft mine,	Bone of leg slightly fractured by a fall of roof.
	6,	Martin Cunningham,	22	Irish,	Laborer,	Pine Brook shaft mine,	Slightly injured; fell off hoisting carriage into sump.
	7,	John Gumball,	35	Polish,	Footman,	Jermyn No. 2 shaft mine,	Leg slightly injured by being caught between switch stand and car.
	8,	Oliver Vanson,	15	Irish,	Driver,	Hyde Park shaft mine,	Nose broken by being kicked by a mule.
	14,	Frederick W. Peck,	32	German,	Miner,	Capouse shaft mine,	Both of these men were injured by a fall of rock roof.
	14,	George E. Stevenson,	24	English,	Laborer,	Capouse shaft mine,	
	16,	Michael McCarty,	14	Irish,	Culm driver,	Von Storch culm dump mine,	Jaw bone fractured by being struck by wheel of culm car on dump.
	16,	Edward Moran,	29	American,	Driver boss,	Archbald shaft mine,	Leg fractured above the ankle; stepped on by a mule.
	17,	David Edwards,	31	Welsh,	Miner,	Hampton shaft mine,	Injured by a fall of roof.
	20,	Michael Cluning,	16	Irish,	Driver,	Mount Pleasant shaft mine,	Thigh fractured; stretcher caught in latch and pulled his leg under the car.
	21,	Charles Carlson,	30	Swedish,	Miner,	Hyde Park shaft mine,	Slightly burned while carelessly handling powder.
	21,	Johannes Anderson	25	Swedish,	Laborer,	Hyde Park shaft mine,	Slightly burned by powder.
	21,	Patrick King,	15	Irish,	Driver,	Greenwood No. 2 shaft mine,	Calf of leg injured by being caught between bumpers of cars.
	26,	John Beskey,	26	Hungarian,	Laborer,	Green Ridge slope mine,	Injured by a fall of roof.

TABLE NO. 2.—*Continued.*

Date, 1895.	Names.	Age.	Nationality.	Occupation.	Colliery Where Accident Occurred.	Nature of Accident.
	26, Patrick Queeney,	22	Irish,	Laborer,	No. 1 Old Forge shaft mine,	Slightly injured by a fall of rock.
Aug.	26, Samuel Morgan,	30	Welsh,	Miner,	Oxford shaft mine,	Ankle sprained by being caught under a fall of bony coal.
	28, Edward Murphy,	37	Irish,	Miner,	Oxford shaft mine,	Shoulder dislocated; fell while shoving a car.
	29, Ed. Malia,	14	Irish,	Door boy,	Hyde Park shaft mine,	Leg cut off below the knee by being run over by cars.
	30, John Wilkins,	32	English,	Laborer,	Old Forge No. 2 shaft mine,	Skull fractured in two places; arm broken and shoulder crushed by a fall of rock.
	30, Thomas Jenkins,	45	Welsh,	Roadman,	Hampton shaft mine,	Foot cut by an axe.
Sept.	2, Jacob Schooster,	43	German,	Miner,	Pine Brook shaft mine,	Back bruised by a fall of roof.
	3, Patrick Cain,	13	American,	Slate picker,	Dickson, outside, mine,	Left foot cut off; fell under a car which ran over his foot.
	11, Peter O'Hara,	17	Irish,	Driver,	Hyde Park shaft mine,	Four fingers of left hand lacerated; run over by a car.
	13, William Hannah,	22	American,	Laborer,	Sloan shaft mine,	Arm fractured and left foot badly cut by a fall of bony coal.
	14, Arthur Davis,	18	Welsh,	Driver,	Diamond shaft mine,	Struck by stretcher on the stomach.
	17, Peter Smith,	28	Lutwich,	Miner,	Lawrence drift mine,	Injured by a fall of rock.
	18, William Shug,	38	English,	Miner,	Greenwood No. 1 shaft mine,	Back scratched and ankle bruised by a fall of roof.
	19, John Duffy,	40	Irish,	Miner,	Greenwood No. 1 shaft mine,	Left leg fractured below the knee by a fall of rock.
	19, Felix Bacoske,	49	Polish,	Laborer,	Greenwood No. 1 shaft mine,	Four toes of left foot cut off by same fall.
	20, Mike Conway,	15	Irish,	Driver,	Jermyn No. 2 shaft mine,	Arm fractured by being kicked by a mule.
	21, Bernard Clark,	46	Irish,	Miner,	Lawrence drift mine,	Struck on hips; fall of roof.
	24, Ebenezer Saunders,	28	Welsh,	Miner,	Cayuga shaft mine,	Slightly injured in Clark vein by a fall of roof
	25, Powell Gusler,	28	Polish,	Laborer,	Cayuga shaft mine,	Leg fractured below the knee by being caught between cars.
	27, William Evans,	15	Welsh,	Driver,	Jermyn No. 2 shaft mine,	Slightly injured by being caugh between car and prop.
	28, Peter Comptess,	59	German,	Fire boss,	Manville shaft mine,	Back and both ankles injured by a fall of rock.
	30, Edward McGuire,	16	American,	Driver,	Dickson shaft mine,	Right arm badly fractured; fell in front of a loaded car.
	30, David Watkins,	21	Welsh,	Laborer,	Sloan shaft mine,	Head injured by being struck by a piece of coal that fell from top bench.
Oct.	1, Leng Metcalf,	58	English,	Company laborer,	Pyne shaft mine,	Two ribs fractured; squeezed between a rock car and a pillar.
	3, Patrick O. Boyle,	59	Irish,	Door tender,	Von Storch shaft mine,	Left leg fractured by being struck by a mule and knocked down.

	5,	Charles Williams,	21	Welsh,	Culm man,	Lawrence drifts mine,	Severely injured on head by being caught between cars.
	7,	Bartish Guston,	25	Italian,	Laborer,	Wm. A shaft mine,	Head and shoulders burned by explosion of gas.
	9,	Wm. T. Jones, Sr.,	53	Welsh,	Miner,	Continental shaft mine,	These three men were slightly injured by a fall of roof.
cc	9,	Wm. T. Jones, Jr.,	23	Welsh,	Laborer,	Continental shaft mine,	
*	9,	Charles Smith,	30	Polish,	Laborer,	Continental shaft mine,	
	11,	John Groske	32	Polish,	Laborer,	Meadow Brook shaft mine,	Skull fractured by a fall of roof.
	11,	William Wicks,	59	English,	Miner,	Brisbin shaft mine,	Body bruised; run into by empty car.
	16,	Anthony Stancheski,	34	Polish,	Laborer,	Bellevue slope mine,	Heel injured; a piece of coal fell and caught it.
	18,	John Rocshie,	35	Polish,	Laborer,	Jermyn No. 2 shaft mine,	Leg fractured and otherwise crushed by a fall of soapstone.
	19,	John Shea,	18	Irish,	Driver,	National shaft mine,	Leg fractured by being caught between bumpers of cars.
	19,	Benjamin Evans,	55	Welsh,	Miner,	Oxford shaft mine,	Two ribs fractured and left hand cut by premature explosion of a blast.
	23,	Joseph Swantack,	27	Polish,	Laborer,	Mount Pleasant shaft mine,	Legs and arms squeezed, no bone broken, by being caught between cars.
	23,	Walter Williams,	52	Welsh,	Miner,	Pyne shaft mine,	Seriously injured by a fall of top coal.
	24,	Thomas Harris,	15	American,	Driver's helper,	Holden shaft mine,	Both legs fractured by a fall of roof.
	24,	James Sweeny,	43	Irish,	Miner,	Cayuga shaft mine,	Back slightly injured by a fall of roof in Clark vein.
	26,	John Tully,	18	English,	Driver,	Von Storch slope mine,	Leg fractured by being run over by cars.
	28,	James Reddington,	32	Irish,	Miner,	Manville shaft mine,	Slight flesh wounds on back, arms and legs by the premature explosion of a blast.
	31,	Ed. Williams,	40	Welsh,	Miner,	Bellevue shaft mine,	Slightly injured on back and leg by a fall of bony coal.
Nov.	1,	John Flaherty,	27	Irish,	Laborer,	Sloan shaft mine,	Injured by a fall of rock.
	2,	John R. Jones,	30	Welsh,	Laborer,	Capouse shaft mine,	Squeezed about the hips by a fall of bony coal.
	5,	James Smith,	16	American,	Driver,	Diamond Tripp shaft mine,	Kicked on the face by a mule.
	7,	Patrick Grady,	28	Irish,	Miner,	Mount Pleasant shaft mine,	Forehead and elbow cut by being struck by flying coal from a blast.
	8,	William Williams,	16	Welsh,	Driver,	Cayuga shaft mine,	Leg mashed below the knee by being caught between bumpers of cars.
	9,	Jenkin Reynolds,	18	Welsh,	Runner,	Continental shaft mine,	Squeezed between car and the leg supporting collar.
	9,	John Tighe,	16	Irish,	Driver,	Continental shaft mine,	Squeezed between loaded and empty cars.
	9,	Michael Beestrock,	24	Polish,	Laborer,	Jermyn No. 2 shaft mine,	Fingers caught while in the act of spragging a car on culm dump.
	9,	Peter Spitco,	33	Polish,	Car runner,	Jermyn No. 2 shaft mine,	Thumb caught while in the act of spragging a car.
	14,	Lewis R. Evans,	35	Welsh,	Fire boss,	Manville shaft mine,	Ran his foot against a miner's needle and injured it.
	14,	Martin Tinge,	52	Irish,	Miner,	Continental shaft mine,	Both of these men injured; were shot through a pillar by Wm. McNicholas, who says that he gave the proper warning, which was denied by Martin Tinge and Paul Karuck.
	14,	Paul Karuck,	28	Polish,	Laborer,	Continental shaft mine,	
	15,	Owen Holmes,	35	Welsh,	Miner,	Cayuga shaft mine,	Seriously injured by a blast shot in a cross cut between two chambers.
	15,	Charles Johnson,	35	Swedish,	Miner,	Hyde Park shaft mine,	Leg fractured by a fall of coal.
	15,	James Wardope,	55	Scotch,	Miner,	Lawrence drift mine,	Thigh fractured by a fall of roof.

TABLE NO. 2.—*Continued.*

Date, 1895.	Names.	Age.	Nationality.	Occupation.	Colliery Where Accident Occurred.	Nature of Accident.
Nov. 18,	Eleazer Howells,	18	Welsh,	Driver,	Diamond shaft mine,	Slightly injured by being squeezed between car and pillar.
19,	Dorn Leonard,	27	Italian,	Miner,	Lawrence drift mine,	These men were slightly injured; while in the act of forcing a cartridge into a hole in coal it exploded.
19,	John Marcortoni,	26	Italian,	Miner,	Lawrence drift mine,	
20,	John Jenkins,	43	Welsh,	Company man,	Manville shaft mine,	Slightly injured; fell off the hoisting carriage into the sump, a distance of about 15 feet
20,	Martin Busawage,	45	Polish,	Miner,	Green Ridge slope mine,	Slightly burned; set off some loose powder in his powder box.
21,	William Holman,	28	English,	Laborer,	Hyde Park shaft mine,	Ankle dislocated by a fall of bony coal.
21,	Thomas Mulherin,	60	Irish,	Outside laborer,	Cayuga breaker mine,	Wrist fractured; fell when coming out of breaker.
21,	Thomas Abraniske,	47	Polish	Miner,	Greenwood No. 1 shaft mine,	Back and ankle sprained; a slab of rock fell on him.
22,	Joseph Snethka,	41	Polish,	Miner,	Jermyn No. 1 shaft mine,	Back and leg bruised by a fall of rock.
25,	John McDonough,	18	Irish,	Laborer,	Sloan shaft mine,	Instep slightly injured by a fall of roof.
26,	Edward Walsh,	21	Irish,	Laborer,	Manville shaft mine,	Right leg fractured by a fall of roof.
27,	Frank Frabriski,	42	Polish,	Miner,	National shaft mine,	Left leg fractured by a premature blast.
27,	Obadiah Day,	29	Welsh,	Miner,	Greenwood No. 2 shaft mine,	Seriously injured about body, legs and hips by a fall.
28,	Michael Heher,	47	Irish,	Miner,	Hampton shaft mine,	Injured by a fall of roof.
28,	Andrew Barrett,	16	Irish,	Driver,	Cayuga shaft mine,	Slightly injured; thrown off a mule's back.
30,	Patrick McHale,	65	Irish,	Laborer,	Mount Pleasant shaft mine,	Fingers cut off by a fall of bony coal.
Dec. 2,	John Connelly,	52	Irish,	Miner,	Shaft No. 2 Old Forge mine,	Hip dislocated by a fall of coal while in the act of mining out a blast.
4,	John B. Jones,	47	Welsh,	Miner,	Pine Brook shaft mine,	Slightly injured by an explosion of gas.
6,	Gwe. Jones,	17	Welsh,	Runner,	Wm. A shaft mine,	Thigh slightly bruised; bumped by a trip of cars.
7,	Thomas McGuire,	56	Irish,	Miner,	Cayuga shaft mine,	Back and side injured by a fall of rock.
10,	John Kellow,	30	German,	Laborer,	Dickson shaft mine,	Struck on left arm and right thigh, by coal flying from blast.
11,	William Driscoll,	19	Irish,	Company laborer,	Sloan shaft mine,	One bone of wrist fractured by being caught between car and roof.
13,	Michael Cockchalk,	21	Polish,	Laborer,	National shaft mine,	Burned while carelessly handling powder.
13,	Joe Gut,	26	Polish,	Laborer,	Continental shaft mine,	Head cut and side bruised by a fall of top coal.
16,	Martin Healy,	15	American,	Driver,	Bunker Hill drift mine,	Kicked on head by a mule.

17,	Edward Jones, ...	17	English, ...	Driver, ...	Nay Aug drift mine, ...	Injured by being squeezed between cars.
18,	Henry Frost, ...	20	Welsh, ...	Driver, ...	Spring Brook drift mine, ...	Leg fractured by being run over by rock bucket.
19,	Frank Urban, ...	32	Hungarian, ..	Miner, ...	Austin drift mine, ...	Injured; coal slipped out from face and carried him down the chamber, a distance of sixty-five feet.
27	John Davis, ...	27	Irish, ...	Laborer, ...	Greenwood No. 1 shaft mine, ...	Badly ruptured; slipped on bottom and fell.

Legs fractured, ...	47
Arms fractured, ...	8
Other bones fractured, ...	1
Legs slightly injured, ...	1
Arms slightly injured, ...	1
Other bones slightly injured, ...	1
Burned by powder explosions, ...	24
Burned by gas explosions, ...	8
Injured by cars, ...	22
Injured by falls of roof, ...	35
Injured by falls of coal, ...	17
Kicked by m iles, ...	3
Miscellaneous, ...	17
Total, ...	192

TABLE No. 3.—*Giving the total number of tons of coal mined, shipped, consumed and sold at each colliery, number of days worked, number of persons employed, number of kegs of powder used, the total volume of ventilation, mode of, and condition of ventilation, the number of boilers and their condition when last examined.*

Names of Collieries.	Location of Collieries in Lackawanna County.	By Whom Operated.	Names of Superintendents.	Names of Outside Foremen.
1. Archbald shaft mine, ...	Lackawanna twp., ...	Dela., Lacka. & Western R. R. Co.,	W. R. Storrs, general coal agent, ...	John Fern.
2. Bellevue shaft mine, ...	Lackawanna twp., ...	Dela., Lacka. & Western R. R. Co.,	W. H. Storrs, asst. general coal agent,	B. C. Green.
3. Bellevue slope mine, ...	Lackawanna twp., ...	Dela., Lacka. & Western R. R. Co.,	B. Hughes, gen'l mine superintendent,..	B. C. Green.
4. Brisbin shaft mine, ...	Scranton city, ...	Dela., Lacka. & Western R. R. Co.,	Thos. D. Davies, asst. mine supt., ...	E. H. Evans.
5. Cayuga shaft mine, ...	Scranton city, ...	Dela., Lacka. & Western R. R. Co.,	Thos. W. Phillips, asst. mine supt., ..	Giles S. Decker.
6. Central shaft and Sloan breaker, ...	City of Scranton and Lackawanna twp., ..	Dela., Lacka. & Western R. R. Co.,	Townsend Poor, gen. master mechanic,	Fred. Peters.
7. Continental shaft mine, ..	Lackawanna twp., ...	Dela., Lacka. & Western R. R. Co.,	Townsend Poor, gen. master mechanic,	J. F. Green.
8. Dodge shaft mine, ...	Lackawanna twp., . ..	Dela., Lacka. & Western R. R. Co.,	Townsend Poor, gen. master mechanic,	S. M. Ives.
9. Diamond No. 2 shaft mine,	Scranton city, ...	Dela., Lacka. & Western R. R. Co.,	Townsend Poor, gen. master mechanic,	Wm. S. Langstaff.
10. Hyde Park shaft mine, ...	Scranton city, ...	Dela., Lacka. & Western R. R. Co.,	Townsend Poor, gen. master mechanic,	E. E. Thomas.
11. Manville shaft mine, ...	Scranton city, ...	D., L. & W. R. R. Co. & D. & H. C. Co.	Townsend Poor, gen. master mechanic,	D. B. Atherton.
12. Oxford shaft mine, ...	Scranton city, ...	Dela., Lacka. & Western R. R. Co.,	Townsend Poor, gen. master mechanic,	Wm. B. Thornton.
13. Tripp shaft mine, ...	Scranton city, ...	Dela., Lacka. & Western R. R. Co.,	Townsend Poor, gen. master mechanic,	Wm. S. Langstaff.
14. Tripp slope mine, ...	Scranton city, ...	Dela., Lacka. & Western R. R. Co.,	Townsend Poor, gen. master mechanic,	Wm. S. Langstaff.
15. Holden shaft mine, ...	Taylor borough, ...	Dela., Lacka. & Western R. R. Co.,	Townsend Poor, gen. master mechanic,	Wm. B. Owens.
16. Hampton shaft mine, ...	Lackawanna twp., ...	Dela., Lacka. & Western R. R. Co.,	Townsend Poor, gen. master mechanic,	J. H. Hoffman.
17. Pyne slope and shaft mine,	Lackawanna twp., ...	Dela., Lacka. & Western R. R. Co.,	Townsend Poor, gen. master mechanic,	A. Rheinhart.
18. Taylor shaft mine, ...	Taylor borough.	Dela., Lacka. & Western R. R. Co ,	Townsend Poor, gen. master mechanic,	P. F. Cooper.
19. Taylor drift mine, ...	Taylor borough, ...	Dela., Lacka. & Western R. R. Co.,	Townsend Poor, gen. master mechanic,	
20. Austin drift mine, ...	Old Forge township, ..	Austin Coal Company, ...	S. W. Mlinaris.	A. J. Thompson.
21. Dickson shaft mine, ...	Scranton city, ...	Delaware and Hudson Canal Company,	A. H. Vandling, A. Nicol, assistant, ..	W. McDonnell.
22. Von Storch shaft mine, .	Scranton city, ...	Delaware and Hudson Canal Company,	Finlay Ross, assistant, ...	Charles W. Ziegler.
23. Von Storch slope mine, ..	Scranton city, ...	Delaware and Hudson Canal Company,	J. L. Atherton, outside assitant, ...	Charles W. Ziegler.
24. Capouse shaft mine, ...	Scranton city, ...	Lackawanna Iron and Steel Company,..	Wm. P. Morgan, ...	Thomas G. Morgan.
25. Pine Brook shaft mine, ...	Scranton city, ...	Lackawanna Iron and Steel Company,..	Wm. P. Morgan, ...	T. H. Bray.

26. Mt. Pleasant shaft mine,..	Scranton city, ...	William T. Smith, ...	Thomas Sprague, ...	Thomas Sprague.
27. Green Ridge slope mine, ...	Dunmore borough, ...	O. S. Johnson, ...	O. S. Johnson, ...	William S. Boyd.
28. Shaft No. 5 Dunmore mine,	Dunmore borough, ...	Pennsylvania Coal Company, ...	G. B. Smith, superintendent, ...	Christopher Moffat.
29. Bunker Hill No. 2, drift mine, ...	Dunmore borough, ...	Pennsylvania Coal Company, ...	Alexander Bryden, asst. superintendent,	John Mitchell.
30. Shaft No. 1, Old Forge drift mine, ...	Old Forge township. ..	Pennsylvania Coal Company, ...	James Young and Anthony Horan, assts.	Richard Howard.
31. Shaft No. 2, Old Forge drift mine, ...	Old Forge township, ..	Pennsylvania Coal Company, ...	James Young and Anthony Horan, assts.	Richard Howard.
32. Meadow Brook shaft mine,	Scranton city, ...	William Connell & Co., ...	Col. E. H. Ripple, ...	Malachi Coyne.
33. Meadow Brook tunnel mine,	Scranton city, ...	William Connell & Co., ...	Col. E. H. Ripple, ...	Malachi Coyne.
34. National shaft mine, ...	Scranton city, ...	William Connell & Co., ...	Col. E. H. Ripple, ...	Malachi Coyne.
35. William A. shaft mine, ..	Old Forge township,..	The Connell Coal Company, ...	William Connell, ...	Patrick Judge.
36. Lawrence shaft and drift mines, ...	Ransom township, ...	The Connell Coal Company, ...	Samuel T. Jones, assistant, ...	W. J. Brown.
37. Greenwood No. 1 shaft mine, ...	Lackawanna twp., ...	Greenwood Coal Company, Limited, ..	John Lovering.	T. J. McCarthy.
38. Greenwood No. 2 shaft mine, ...	Lackawanna twp., ...	Greenwood Coal Company, Limited, ..	John Lovering.	Thomas R. Lovering.
39. Jermyn No. 1 shaft mine,	Rendham township, ...	Jermyn & Company.	J. J. Jermyn and Samuel Baker, asst.,	Joseph Merritt.
40. Jermyn No. 2 shaft mine.	Old Forge township,..	Jermyn & Company.	J. J. Jermyn and Samuel Baker, asst.,	Wm. E. Merritt.
41. Sibley shaft mine, ...	Old Forge township,..	Elliott, McClure & Company, ...	James C. McClure, ...	W. F. Courtright.
42. West Ridge slope and shaft mine, ...	Scranton city, ...	West Ridge Coal Company, ...	E. A Clark, ...	B. F. Fillmore.
43. Spencer's shaft mine, ...	Dunmore borough, ...	E. D. and F. M. Spencer, ...	E. D. and F. M. Spencer, ...	E. D. & F. M. Spencer.
44. Nay Aug slopes and drifts,	Dunmore borough, ...	Nay Aug Coal Company, ...	Thomas Protheroe, ...	J. D. Caryl.
45. Providence shaft mine, ...	Scranton city, ...	Providence Coal Company, Limited, ...	.....	John F. Nicely.
46. Columbus breaker mine, ..	Scranton city, ...	.....	C. M. Carr, ...	.....
Tripp & Co., local coal sale mine, ...	Scranton city, ...	.....	.....	.....
Mountain Lake Land and Coal Company, Limited,	Scranton city, ...	Mountain Lake Land and Coal Co.,....	C. C. Ferber, treasurer, ...	.....

TABLE NO. 3.— *Continued.*

Names of Collieries.	Total number of tons of coal produced.	Total number of tons of coal shipped to market.	Total number of tons of coal consumed at mines.	Total number of tons of coal sold at mines.	Total number of Kegs of powder used at mines.	Total number of persons employed at each colliery.	Total number of days worked at each colliery.	Total number of horses and mules.	Number of mine locomotives.	Horse power of locomotives.	Number of persons working in mines.	Number of persons working in air splits.
1. Archbald shaft mine,	240,903.03	228,578.03	10,950	1,375	7,804	575	192.25	78	1	94	384	283
2. Bellevue shaft mine,												245
3. Bellevue slope mine,	249,136.06	223,022.06	18,250	7,864	7,620	616	186.1	101	1	74	436	79
4. Brisbin shaft mine,	191,794.04	177,164.04	9,900	4,730	5,492	480	199.3	57	1	74	331	262
5. Cayuga shaft mine,	238,531.08	214,753.18	20,000	3,777.10	6,386	537	196.4	73	1	94	383	260
6. Central shaft and Sloan breaker,	246,054.03	234,335.03	10,900	819	5,914	556	189.5	75	3	242	379	319
7. Continental shaft mine,	184,624.12	176,804.02	5,250	2,570.10	5,109	473	193.2	65			312	194
8. Dodge shaft mine,	173,945.18	161,590.18	10,000	2,355	5,647	424	193.6	70	1	94	283	241
9. Diamond No. 2 shaft mine,												26
10. Hyde Park shaft mine,	158,009.08	151,455.08	4,380	2,174	7,480	451	193.8	69			319	245
11. Manville shaft mine,	152,401.06	141,646.18	8,500	2,254.08	9,556	409	199.75	41			300	300
12. Oxford shaft mine,	191,861.05	150,412.16	13,000	28,448.09	5,289	412	189.2	92				224
13. Tripp shaft mine,												281
14. Tripp slope mine,	251,885.10	229,275.10	18,500	4,110	8,038	616	181.8	73	4	356	452	105
15. Holden shaft mine,	60,274.04	54,873.04	4,400	1,001	1,799	165	171	24			100	98
16. Hampton shaft mine,	169,046.18	156,649.18	8,600	3,797	5,573	415	193.8	61			279	253
17. Pyne slope and shaft mine,	213,686.06	201,984.06	10,000	1,702	6,498	490	191.2	71	1	94	324	268
18. Taylor shaft mine,							193.6	74				205
19. Taylor drift mine,	197,877.13	185,476.13	8,370	4,031	6,015	460						43
Total,	2,920,032.04	2,688,023.07	161,000	71,008.17	94,220	7,079	192.44	1,024	13	1,122	4,003	3,938
20. Austin drift mine,	51,750.16	48,832.06	1,834.15	1,083.15	2,066	375	110.2	24	1	30	276	150
21. Dickson shaft mine,	235,679.12	218,121.18	15,030	2,527.14	7,055	459	202	58			353	305
22. Von Storch shaft mine,												205
23. Von Storch slope mine,	264,285.04	226,306.08	31,755	6,223.16	6,756	644	227	90			503	98
24. Capouse shaft mine,	248,539	237,117	7,000	4,422	9,090	617	187.2	82			452	445
25. Pine Brook shaft mine,	206,091	173,869	7,000	25,222	13,020	565	171	72			445	407

26. Mount Pleasant shaft mine,	140,207	133,526	7,709	28,881	8,152	324	197.4	51	1	58	352	301
27. Green Ridge slope mine,	150,663.08	133,447.12	11,550	5,665.16	8,217	391	196.75	44	.....	.....	285	210
28. Shaft No. 5 Dunmore mine,	106,461	103,408	3,053	.....	4,373	368	140.75	33	.....	.....	278	256
29. Bunker Hill No. 2 drift mine,	49,304	48,568	736	.....	629	137	145.5	9	.....	.....	102	100
30. Shaft No. 1 Old Forge mine,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
31. Shaft No. 2 Old Forge mine,	201,879	196,703	5,176	.....	7,055	523	147.5	58	2	178	383	180
32. Meadow Brook shaft mine,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	101
33. Meadow Brook tunnel mine,	168,569	142,895	12,819	12,795	8,019	452	182.2	50	1	35	288	56
34. National shaft mine,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	139
35. William A. shaft mine,	96,837	84,942	2,563	2,392	3,227	574	73.9	27	.....	.....	391	282
36. Lawrence shaft and drift mine,	240,805	238,367	1,280	1,158	8,330	376	225.7	31	.....	.....	257	222
37. Greenwood No. 1 shaft mine,	182,098.17	166,910.17	13,000	2,188	9,164	499	173.4	82	1	46	357	306
38. Greenwood No. 2 shaft mine,	68,135.02	63,635.02	4,500	.....	3,262	234	167.6	39	.....	.....	170	142
39. Jermyn No. 1 shaft mine,	147,339.02	137,119.02	6,185	4,035	5,835	529	121.6	62	.....	.....	323	284
40. Jermyn No. 2 shaft mine,	232,652.08	227,177.08	5,475	.....	7,711	547	179.4	40	.....	.....	370	336
41. Sibley shaft mine,	108,164.07	96,559.01	10,960	1,655.06	4,498	387	182.8	41	.....	.....	227	195
42. West Ridge slope and shaft mine,	101,110.08	78,528.11	8,800	13,781.17	4,650	375	120	26	.....	.....	259	150
43. Spencer's shaft mine,	106,131.02	90,694.08	3,700	11,736.14	4,750	290	121	37	.....	.....	205	205
44. Nay Aug slopes and drifts,	38,810.08	38,310.08	1,500	.....	587	131	161	13	.....	.....	64	61
45. Providence shaft mine,	17,024	16,113	750	761	927	205	73.7	27	.....	.....	149	109
46. Columbia breaker,	38,845	.....	.....	38,845	.....	14	205	.....	.....	.....	.....	.....
Tripp & Co. local coal sale mine,	5,737	.....	.....	5,737	.....	26	79	.....	.....	.....	.....	.....
Mountain Lake Land and Coal Co., Limited,	1,805	.....	.....	1,805	.....	9	.....	.....	.....	.....	.....	.....
Total,	3,269,463.14	2,925,151.01	173,296.15	171,015.18	125,137	9,190	.....	996	6	347	6,519	5,432
Grand total,	6,189,495.18	5,613,174.08	394,296.15	242,024.15	219,357	16,269	.....	2,020	19	1,469	10,522	9,374

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Table No. 3.—*Continued.*

Names of Collieries.	Number of air splits.	Total Volume of Air.			Mode of ventilation.	Condition of ventilation.	Number of boilers at each colliery.	Names of Mine Foremen and Assistant Mine Foremen.
		At intake.	At face of workings.	At outcast.				
1. Archbald shaft mine,	6	136,783	132,919	133,307	Fan,	Good.	14	Joseph B. Loyd.
2. Bellevue shaft mine,	5	129,360	93,337	149,298	Fan,	Good,	...	John Hale.
3. Bellevue slope mine,	2	48,740	45,775	50,075	Fan,	Good,	24	Daniel Z. Davies; Thos. E. Williams, assistant.
4. Brisbin shaft mine,	8	127,974	118,220	136,340	Fan,	Good,	15	Frank Zimmerman.
5. Cayuga shaft mine,	6	83,970	74,950	93,960	Fan,	Good,	24	John P. Morgan.
6. Central shaft and Sloan breaker,	11	150,040	123,341	149,678	2 fans,	Good,	49	Lewis Roberts; H. P. Davies, assistant.
7. Continental shaft mine,	8	132,280	105,620	173,870	Fan,	Good,	15	R. H. Williams.
8. Dodge shaft mine,	10	198,225	212,199	278,052	Fan,	Good,	23	Edward James; Wm. R. Evans, assistant.
9. Diamond No. 2 shaft mine,	2	29,600	*	28,800	Fan,	Good,	.....	James A. Evans.
10. Hyde Park shaft mine,	6	114,357	98,755	110,174	Fan,	Good,	12	David W. Moser; Wm. J. Thomas, assistant.
11. Manville shaft mine,	9	183,543	133,572	191,362	3 fans,	Good,	18	Thomas J. Williams.
12. Oxford shaft mine,	10	144,125	138,730	150,210	Fan,	Good,	19	Rees A. Phillips, David S. Evans.
13. Tripp shaft mine,	9	214,020	182,800	255,200	2 fans,	.....	...	James A. Evans.
14. Tripp slope mine,	5	47,900	*	50,100	Fan,	Good,	55	E. P. Davies.
15. Holden shaft mine,	2	59,840	52,210	61,830	Fan,	Good,	12	H. E. Harris.
16. Hampton shaft mine,	6	67,832	70,329	83,897	Fan,	Good,	16	David W. Moser; Wm. J. Thomas, assistant.
17. Pyne slope and shaft mine,	9	126,931	100,006	129,278	Fan,	Good,	22	James M. Thomas.
18. Taylor shaft mine,	5	153,560	125,497	165,987	Fan,	Good	.....	John R. Johns; Sydney Baker, assistant.
19. Taylor drift mine,	1	40,789	33,664	68,898	Fan,	Good,	.....	John R. Johns; Sydney Baker, assistant.
20. Austin drift mine,	3	99,655	12,750	101,010	Fan,	Good,	6	P. S. Coyne.
21. Dickson shaft mine,	8	131,000	130,084	143,200	2 fans,	Good,	18	Alex. Aikman.
22. Von Storch shaft mine,	7	93,150	69,240	112,560	.....	.....	...	
23. Von Storch slope mine,	2	48,270	41,900	54,570	2 fans,	Good,	29	Martin Loftus.
24. Capouse shaft mine,	8	180,570	191,550	216,140	2 fans,	Good,	3	Joseph Rees.
25. Pine Brook shaft mine,	7	241,920	226,670	244,836	2 fans,	Good,	5	John H. Powell.
26. Mount Pleasant shaft mine,	5	106,225	78,035	109,010	2 fans,	Good,	14	John Von Bergen.
27. Green Ridge slope mine,	3	60,185	25,140	71,365	Fan,	Good.	21	Edward Hughes.
28. Shaft No. 3 Dunmore mine,	7	130,775	85,950	131,175	Fan,	Good.	10	John W. Reid.

29. Bunker Hill No. 2 drift mine,	3	28,700	25,300	28,800	Furnace, ..	Good,	6	William S. Jones.
30. Shaft No. 1 Old Forge mine,	6	98,000	88,112	112,980	.....	.....	13	Patrick A. Sweeney.
31. Shaft No. 2 Old Forge mine,	4	91,960	79,440	103,860	3 fans, ...	Good,		Alex. Allen.
32. Meadow Brook shaft mine,	3	64,120	59,520	66,570	.....	.....	.....	David A. Davis.
33. Meadow Brook tunnel mine,	1	26,170	20,410	29,190	Fan, ...	Good.	14	David A. Davis.
34. National shaft mine,	4	63,780	58,070	66,410	Fan, ...	Good.	14	David D. Griffiths.
35. William A. shaft mine,	5	114,700	114,200	118,200	Fan, ...	Good.	18	Alfred H. Hale.
36. Lawrence shaft and drift mine,	5	97,770	79,050	98,260	Fan, ...	Good.	12	Robert McCutcheon.
37. Greenwood No. 1 shaft mine,	6	106,908	97,310	123,111	3 fans, ...	Good,	16	Rowland Davies and Thomas F. Jones.
38. Greenwood No. 2 shaft mine,	4	52,950	46,220	57,590	3 furnaces,	Good,	6	David A. Jones.
39. Jermyn No. 1 shaft mine,	5	78,725	72,005	83,602	Fan, ...	Good,	20	Stephen Johns.
40. Jermyn No. 2 shaft mine,	8	138,930	110,630	143,640	2 fans, ...	Good,	15	Simpson Wharton.
41. Sibley shaft mine,	5	74,553	49,207	76,054	Fan, ...	Good,	13	Thomas P. Cosgrove.
42. West Ridge slope and shaft mine,	4	106,087	69,042	120,067	Fan, ...	Good,	16	Richard Martin.
43. Spencer's shaft mine,	4	51,280	50,710	52,020	Fan, ...	Good	11	P. H. Mongan.
44. Nay Aug slopes and drifts,	3	45,340	21,710	53,060	**	.....	.....	Thomas Protheroe.
45. Providence shaft mine,	*	.....	.....	.....	2 fans, ...	Good.	8	W. H. Hosking.
46. Columbia breaker,								
Tripp & Co. local coal sale mine,								
Mountain Lake Land and Coal Co., Limited,								

*Idle since May.

** Natural old drifts and air shafts

THIRD ANTHRACITE DISTRICT.

(LUZERNE AND SULLIVAN COUNTIES.)

Pittston, Pa., March 10, 1896.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa:

Sir: I have the honor herewith of presenting my annual report as Inspector of mines of the Third Anthracite District for the year 1895. The total production of coal in this district was 6,214,834 tons, an increase of 672,882 tons over that of 1894.

The number of fatal accidents was 69, being 18 more than the year previous, leaving 30 wives widows and 109 orphans. The number of non-fatal accidents was 167. The quantity of coal produced per life lost was 90,070 tons.

The report contains the usual tables with a brief description of a few of the fatal accidents and of the general improvements in the mines during the year.

Very respectfully yours,

H. McDONALD,
Inspector of Mines.

TONS OF COAL MINED DURING THE YEAR 1895.

Pennsylvania Coal Company,	1,195,392
Butler Mine Company, Limited,	221,999
Lehigh Valley Coal Company,	1,056,416
Delaware and Hudson Canal Company,	255,273
Newton Coal Mining Company,	361,011
Old Forge Coal Mining Company,	229,218
Delaware, Lackawanna and Western Railroad Company,	242,146
Forty Fort Coal Company,	314,734
Thomas Waddell Estate,	139,721
John C. Haddock,	196,689
Clear Spring Coal Company,	208,299
Hillside Coal and Iron Company,	102,415
Florence Coal Company, Limited,	82,345

W. G. Payne & Co.,	107,126
Keystone Coal Company,	103,074
Avoca Coal Company,	66,151
Langcliffe Coal Company, Limited,	92,020
Stevens Coal Company,	153,104
Laflin Coal Company,	3,561
Robertson & Law,	48,763
Babylon Coal Company,	234,935
Mount Lookout Coal Company,	336,439
Raub Coal Company, Limited,	8,002
Algonquin Coal Company,	204,045
Laurel Run Coal Company,	61,484
John A Hutchins & Co.,	1,850
Westminster Coal Company,	15,903
William B. Miner,	4,340
Crescent Coal Company,	5,800
Wyoming Coal and Land Company,	10,438
State Line and Sullivan Railroad Company,	152,141
Total,	6,214,834

Number of Fatal Accidents and Tons of Coal Produced Per Life Lost.

Name of Operators.	Number of lives lost.	Tons of coal mined per life lost.
Pennsylvania Coal Company,	13	91,953
Lehigh Valley Coal Company,	12	88,054
Delaware and Hudson Canal Company,	2	127,636
Delaware, Lackawanna and Western Railroad Company,	6	40,377
Butler Mine Company, Limited	2	110,999
Newton Coal Mining Company,	3	120,637
Old Forge Coal Mining Company,	1	229,228
Thomas Waddell Estate,	1	139,729
Hillside Coal and Iron Company,		
John C. Haddock,		
Clear Spring Coal Company,	3	69,133
Florence Coal Company, Limited,		
W. G. Payne & Co.,		
Keystone Coal Company,	1	103,074
Avoca Coal Company,	2	33,075
Laflin Coal Company,		
Robertson & Law,		
Langcliffe Coal Company, Limited,		
Stevens Coal Company,	6	25,517
Babylon Coal Company,	3	78,311
Mount Lookout Coal Company,	2	168,219
Forty Fort Coal Company,	5	62,946
Algonquin Coal Company,	3	68,015
Laurel Run Coal Company,	2	30,742
Westminster Coal Company,	2	7,951
Wyoming Coal and Land Company,		
Raub Coal Company, Limited,		
State Line and Sullivan Railroad Company,		
Crescent Coal Company,		
William B. Miner,		
John A. Hutchins & Co.,		
Total,	69	90,070

Number of Non-Fatal Accidents and Tons of Coal Mined Per Person Seriously Injured.

Name of Operators.	Number of persons injured.	Tons of coal mined per person injured.
Pennsylvania Coal Company,	22	47,815
Lehigh Valley Coal Company,	35	30,183
Delaware and Hudson Canal Company,	5	51,751
Delaware, Lackawanna and Western Railroad Company,	25	
Butler Mine Company, Limited,	7	31,711
Newton Coal Mining Company,	6	60,167
Old Forge Coal Mining Company,	3	76,406
Thomas Waddell Estate,	3	46,573
Hillside Coal and Iron Company,	1	102,417
John C. Haddock,	2	98,241
Clear Spring Coal Company,	3	69,423
Florence Coal Company, Limited,		
W. G. Payne & Co.,	5	21,423
Keystone Coal Company,	4	25,768
Avoca Coal Company,	1	66,151
Laflin Coal Company,	2	1,780
Robertson & Law,		
Langcliffe Coal Company, Limited,	3	30,673
Stevens Coal Company,	7	21,872
Babylon Coal Company,	4	58,733
Mount Lookout Coal Company,	12	28,026
Forty Fort Coal Company,	5	62,946
Algonquin Coal Company,	3	68,015
Laurel Run Coal Company,	3	20,994
Westminster Coal Company,	4	3,975
Wyoming Coal and Land Company,		
Raub Coal Company, Limited,		
State Line and Sullivan Railroad Company,	1	152,141
Crescent Coal Mining Company,	1	5,890
William B. Miner,		
John A. Hutchins & Co.,		
Total,	167	37,208

Number of Fatal and Non-Fatal Accidents and Tons of Coal Produced Per Each Person Killed or Injured.

Name of Operator.	Number of killed or injured.	Tons of coal produced per person killed or injured.
Pennsylvania Coal Company,	35	34,154
Lehigh Valley Coal Company,	47	22,477
Delaware and Hudson Canal Company,	7	36,465
Delaware, Lackawanna and Western Railroad Company,	31	
Butler Mine Company, Limited,	9	24,680
Newton Coal Mining Company,	9	40,112
Old Forge Coal Mining Company,	4	57,304
Thomas Waddell Estate,	4	34,930
Hillside Coal and Iron Company,	1	102,417
John C. Haddock,	2	98,241
Clear Spring Coal Company,	6	34,716
Florence Coal Company, Limited,		
W. G. Payne & Co.,	5	21,423
Keystone Coal Company,	5	20,614
Avoca Coal Company,	3	22,073
Laflin Coal Company,	2	1,780
Robertson & Law,		
Langcliffe Coal Company, Limited,	3	30,673
Stevens Coal Company,	13	11,776
Babylon Coal Company,	7	33,562
Mount Lookout Coal Company,	14	24,051
Forty Fort Coal Company,	10	31,473
Algonquin Coal Company,	6	34,007
Laurel Run Coal Company,	5	12,296
Westminster Coal Company,	6	2,650
Wyoming Coal Company,		
Raub Coal Company, Limited,		
State Line and Sullivan Railroad Company,	1	152,141
Crescent Coal Mining Company,	1	5,890
William B. Miner,		
John A. Hutchins & Co.,		
Total,	236	26,334

Classification of Fatal and Non-Fatal Accidents.

Causes of Accidents	Killed or fatally injured.	Severely injured.
By explosions of gas,	4	34
By falls of roof and coal,	30	43
By falling down shaft,	3	.....
By explosions of powder and blasts,	6	23
Crushed and ran over by mine cars,	12	44
By miscellaneous causes underground,	2	19
By miscellaneous causes on the surface,	12	6
Total,	69	167

Occupations of Persons Killed and Injured.

	Killed.	Injured.
Miners,	25	63
Miners' laborers,	17	41
Drivers and runners,	9	41
Door boys and slate pickers,	2	7
Miscellaneous underground,	5	11
Miscellaneous on surface,	11	4
Total,	69	167

Nationality of Persons Killed or Injured.

	Irish.	Welsh.	American.	English.	Scotch.	German.	Swedes.	Hungarian.	Poles.	Italians.	Totals.
Killed or fatally injured	19	2	9	4	1	2	...	10	19	3	69
Injured,	31	13	30	11	3	7	1	22	46	3	167
Total,	50	15	39	15	4	9	1	32	65	6	236

Number of widows, 30; orphans, 109.

Table Showing the Number of Each Class of Employes in the Second Anthracite District for 1895.

Inside.

Inside foreman and fire bosses,	79
Miners,	4,253
Miners' laborers,	3,602
All other company men,	1,376
Drivers and runners,	1,677
Door boys and helpers,	441
Total,	11,428

Outside.

Outside foremen,	50
Blacksmiths and carpenters,	247
Engineers and firemen,	456
Slate pickers,	3,202
All other company men,	1,911
Superintendents and clerks,	119
Total,	5,985

Summary.

Tons of coal produced,	6,214,834
Tons of coal shipped,	5,719,076
Tons of coal sold at mines,	113,900
Tons of coal used at mines for steam,	381,858
Number of fatal accidents,	69
Number of non-fatal accidents,	167
Number of wives left widows,	30
Number of children made fatherless,	109
Number of persons employed,	17,413
Number of kegs of powder used,	206,906
Number of steam boilers in use,	773
Number of horses and mules,	1,990
Number of mine locomotives,	25
Tons of coal produced per fatal accident,	90,070
Tons of coal produced per non-fatal accident,	37,208
Tons of coal produced per each employe,	351
Average number of days worked,	182.70
Number of tons of coal mined per keg of powder,	20½
Number of tons of coal mined per day,	33,966

By referring to the time worked by the collieries in this report, it will be noticed that twenty-four of them worked less than half time. The cause being on account of restriction in mining and repairing, while three new collieries commenced to ship coal in the latter part of the year. It is evident that if the collieries would work full time, their producing capacity would exceed 10,000,000 tons per year.

The Annual Examination of Applicants for Certificates of Qualification.

The examination of applicants for certificates of qualification was held in the Butler Hill school building, Pittston, Pa., July 10 and 11, 1895.

The board of examiners was H. McDonald, Inspector of mines; S. B. Bennett, superintendent; James Allen and John McGlynn, miners. Twenty-two applicants were examined for mine foreman certificates and the following named passed the required standard: Thomas Thomas, John E. Daley, John J. Costello, William J. Thomas of Pittston, Pa.; David J. Thomas, Miners Mills, Pa.; Thomas McDonald, Port Griffiths, Pa.; Robert H. Guy, Bernice, Pa. Thirteen men were recommended for certificates of qualification as assistant mine foremen.

I regret to have to report eighteen more fatal and nineteen more non-fatal accidents than in 1894. By a perusal of the list of fatal accidents it is seen that the increase has been principally from the miscellaneous causes on the surface or around the breakers, by railroad cars which could have been averted had the ordinary care been taken by the victim, or the persons who were working with them at the time of the accident.

There can be no excuse for the number of accidents herein recorded on the outside by cars and other miscellaneous causes. I found by investigation of those deaths that the principal cause was that the men who are working together cannot understand each other as they should do to protect one another from injury and death. It is often necessary during the working hours for one to warn the other to get out of the way but instead of the warning being obeyed it is generally disregarded, the person caught and injured thinking the call was intended for some other person.

Upon the foreman devolves the responsibility in a great measure for this state of affairs in placing men who cannot understand each others' language in positions where one is dependent on the other for safety. If the foreman would so arrange their workmen that in case of danger they would understand one another there would be fewer accidents to record.

I am glad to say that the collieries at present in operation are in very good condition both as regards ventilation and general safety. There is no standing gas in any of the mines of this district which is very gratifying to know. Three new collieries have been started during 1895, to mine and prepare coal for market; they are located on the outcrop south of the coal basin four miles from Pittston and ship their coal to market over the Lehigh Valley railroad.

Description of Accidents.

The number of fatal accidents in 1895 was 69. The quantity of coal mined per life lost was 90,070 tons, a decrease of 18,595 tons from 1894. While the production was increased 672,882 tons. There was a loss of 18 more lives than in 1894.

About 7.15 a. m. on Tuesday. December 31, 1895, a disastrous boiler explosion took place at Laws shaft operated by the Pennsylvania Coal Company and located near the borough of Avoca, instantly killing Alex. Young, a pump runner, Thomas McDonald, a machinist, and Courtland Rolls, a carpenter, and seriously injuring James T. Blease, the fireman, he having received a fractured skull.

The explosion took place in a battery of six cylinder boilers which had been in position for a number of years. Their length was 46 feet, diameter, 30 inches, and they were located at the rear of the engine house. The boilers were examined on October 8, 1895, and reported as being good and safe. On the evening before the explosion, Edward Miller, the foreman of the machinist corps left orders to have the boilers filled with water in the morning as he intended to do some repairs on the pump which feeds the boilers with water. The colliery being idle on this week on account of the restriction of coal, no work was being done only the necessary repairs which required only a few of the working men to be around at the time. Cortland Rolls had commenced work at repairing the trestling which connects the shaft tower, while McDonald and Young were standing close to the head of the shaft. When the explosion occurred, four of the six boilers exploded simultaneously. The half of one of them passing through the engine house close to Mr. Boswick the engineer who was standing at the engine and crossing the shaft instantly killed the above three men.

I arrived at the scene of the explosion in the afternoon of the same day, I saw that the explosion had been a terrific one as the boiler, engine and fan houses were utterly wrecked and portions of the boilers had been thrown from their position five hundred feet away. Mr. McDermott the night engineer corroborated the testimony of the night fireman before the coroner's inquest, that all of the boilers were full to the top gauge with water, before they left for home in the morning.

From the testimony given by the witnesses at the inquest they could not give any cause for the explosion, therefore the inquest was adjourned so that the jury could go to Dunmore to examine the broken boilers which were taken to the company's shops. They were carefully examined by a competent boiler maker who was taken there for that purpose. After the examination the jury returned to Avoca and rendered the following verdict:

The jury's verdict was that these men came to their death by an explosion of the boilers at Law's shaft operated by the Pennsylvania Coal Company and from evidence produced before us, we do censure the Pennsylvania Coal Company, and we do further say that the said Pennsylvania Coal Company is responsible for the death

of the said Thomas McDonald, Cortland Rolls and Alex. Young on 31st day of December, 1895, caused by boiler explosion.

JOHN E. PERKINS,
Deputy Coroner.

JOHN MOORE,
M. J. REAP,
MICHAEL FADDEN,
HENRY SAVANNAH,
CON. McLAUGHLIN,
JAMES CONNELLY,
Jury.

COLLIERY IMPROVEMENTS DURING 1895.

Pennsylvania Coal Company.

A new shaft was sunk a distance of 79 feet with a sectional area of 100 feet. It is used for ventilation at their Barnum colliery. A new 14 foot fan was erected which exhausts 95,000 cubic feet of air per minute while running 62 revolutions. It is driven by a horizontal engine steam cylinder 10x24 inches.

At Law's shaft a new 20 foot fan was erected which exhausts 95,500 cubic feet of air per minute, steam cylinder 15x30 inches.

At the Hoyte shaft a new 20 foot fan was erected as a duplicate to the one in present use and so arranged that it can be started at a minute's notice in case of the disarrangement of the other one.

The No. 5 shaft was enlarged from the surface to the Pittston seam, and cribbed from the rock to the surface with stone. It was then sunk from the Pittston to the Red Ash seam, a distance of 232 feet which opens up a large territory of coal. The second opening has been started for some time and will be connected with Number 11 shaft which will answer in the same capacity for it. A new fan 20 feet in diameter has been erected to ventilate the workings but it is not in operation at this writing.

Lehigh Valley Coal Company.

At the Exeter colliery of this company the culm washery was enlarged and fitted with the latest improved machinery for cleaning the smaller size coal. A new steam shovel was put in use to convey the culm to the washery, which works very successfully.

Delaware and Hudson Canal Company.

In the Delaware shaft a tunnel was driven from the top split of the Baltimore to the bottom split, a distance of 105 feet. It is used for transporting coal. Sectional area 7x9 feet.

The Laurel Run Colliery, located in the borough of Parson's, which had been operated by the Delaware and Hudson Canal Company since 1869, passed into the possession of the Laurel Run Coal Company on the 1st day of April, 1895, on account of the expiration of the lease.

Newton Coal Mining Company.

Three rock tunnels were driven in this company's colliery from the sixth to the fifth seam a distance of 300 feet each, which are used for the transportation of coal.

Old Forge Coal Mining Company.

An underground slope was sunk in this company's Columbia shaft, a distance of 200 feet; sectional area, 84 feet.

In the Phoenix shaft a tunnel was driven through a fault or roll in the Red Ash seam, a distance of 200 feet; area 7x10 feet. A new plane was erected 500 feet in length with gradient of one foot in five.

A new fan 20 feet in diameter was erected at the Columbia shaft to ventilate the workings of the sixth, or Red Ash seam in both of those shafts which are connected with the upcast to fan. While running 60 revolutions, 164,462 cubic feet of air per minute is exhausted.

Delaware, Lackawanna and Western Railroad Company.

An underground slope was sunk in the Hallstead colliery of this company to a depth of 1,000 feet; 6x12 feet area. A rock tunnel was driven a distance of 398 feet, 6x12 feet which has not tapped the coal at this writing.

In the Pettebone shaft a tunnel was driven 138 feet sectional area, 128 feet. An underground slope was sunk 86 feet on a 25 degree pitch. A new fan 35 feet in diameter, 9 feet face with two inlets enclosed in brick work was put in place. At a speed of 43 revolutions per minute 129,960 cubic feet of air is exhausted with a water gauge of 1 9-10 inches.

Florence Coal Company, Limited.

At the No. 2 shaft the second opening to the Marcy seam was driven to the surface, a distance of 120 feet.

Improvements by the East Boston Coal Company.

A tunnel was driven in the East Boston shaft a distance of 108 feet, from the Cooper to the Lance seam; area 7x14 feet.

In the Baltimore seam an underground slope was sunk 250 feet, 8x12 on a pitch of 7 degrees.

At the Langcliffe colliery an air shaft was sunk 70 feet to ventilate the tunnel workings; area, 30 feet.

Laflin Coal Company.

This company erected a new breaker on the site of the old one which was burned, and which was recorded in my last report. It is a model structure and contains about 900,000 feet of lumber and is fitted with the most approved machinery for cleaning and preparing the coal. It has a capacity of 1,000 tons per day and was started to ship coal in November, 1895. All the dangerous parts are protected by railing or covering as the law requires. A new shaft was sunk 600 feet northeast of the breaker; size, 12x26 feet, cutting the Marcy Ross and the both splits of the Red Ash seams at a depth of 256 feet. The second opening will connect with the slope workings when completed. A new fan 17 feet in diameter was erected to ventilate the shaft workings. The engine is 15x18 inches directly connected.

Babylon Coal Company.

A tunnel was driven in this colliery from the top to the bottom split of the Red Ash seam, a distance of 140 feet for transporting coal.

Mount Lookout Coal Company.

A tunnel was driven through a rock roll in the Pittston seam in this colliery a distance of 1,000 feet, area 7x12 feet. A new fan 20 feet in diameter was erected to help ventilate the workings which are very extensive. This is the third ventilating fan erected in this colliery. An underground slope was sunk 600 feet; area, 8x12 feet.

The main and air shafts are now being sunk to the Red Ash seam.

Algonquin Coal Company.

In the Pine Ridge colliery a shaft was sunk to the Checker seam, 28 feet for ventilation. A tunnel was driven from the Hillman to the Rock seam a distance of 116 feet; area, 7x12 feet. A shaft was sunk from the Hillman to the Kidney seam as a second opening to those veins.

Laurel Run Coal Company.

A tunnel was driven in the Laurel Run slope from the Hillman to the Rock seam a distance of 70 feet to be used for the transportation of coal.

Miner Mines Colliery.

This is a new colliery opened in 1894 by William B. Miner. The opening consist of a drift in the side of the mountain on the outcrop of the Red Ash seam and located about three quarters of a mile southwest of the old Everheart or Boston colliery in Jenkins township, Luzerne county.

A small breaker with a capacity of 300 tons per day was completed and started in January, 1895, to ship coal to market. The mining of coal was suspended after working eleven days in January and remained so all the year.

Westminster Coal Company.

This company opened a mine on the outcrop of the Red Ash seam in 1894, about one and a half miles southwest of the Miner colliery. It is located in Jenkins township, Luzerne county. It is comprised of two openings driven in the side of the mountain, one of which is used for transporting the coal, the other for ventilation which is furnished by a furnace.

An electric plant is located at the Miner breaker to furnish the power for the locomotive which hauls the coal to the breaker where it is prepared for market. This colliery operated the breaker 161.85 days in 1895. A new underground slope was sunk 600 feet with an area of 60 feet.

Crescent Colliery.

This is a new colliery which was opened by the Crescent Coal Company in 1895. The openings consist of four drifts being driven to the Red Ash seam located south of the Westminster openings in Jenkins township. A new breaker was completed and fully equipped with machinery ready to prepare and ship coal.

Hunt Colliery.

This new colliery was opened by the Wyoming Coal and Land Company and commenced to ship coal in June, 1895. The opening consists of a tunnel driven to the Marcy seam a distance of 450 feet; area, 7x16 feet. An underground slope was sunk 500 feet in the Marcy, and headings and airways were started. The tunnel is situated close to the borough of Wyoming and the coal is taken by a small locomotive to the old Hunt breaker and prepared for market. A new 16 foot fan was erected on a shaft sunk for the purpose of ventilating the workings.

Description of a Fire in Wyoming Colliery, Lehigh Valley Coal Company.

A fire started in the Upper Baltimore vein in the Wyoming colliery of the Lehigh Valley Coal Company on May 30, 1895, which became so serious that it was found necessary to flood the mine. Attached is a map of the workings in the part of the mine where the fire occurred showing the elevations and method of ventilation.

But two men were working in this part of the mine, Thomas P. Williams and his laborer. They were engaged in blowing up bottom rock at "A" to improve the grade of the road and also in relaying track. While carrying a rail from the lower road to "A" their lights ignited some feeders behind the brattice at "B." By the time help arrived the fire had gained such headway that nothing could be done without water, and work was commenced immediately by laying pipe to reach the fire. Before this was accomplished a serious explosion occurred and this was succeeded at irregular intervals by others. These explosions broke down the stoppings for some distance outside of the two narrow places driven through the fault, as shown on the map, and the gas accumulated out as far as where the stoppings were down. The headings were however more or less filled with rock sufficient at least to produce a slight current at the face and bring the gas in contact with the burning feeders at every attempt which was made to restore the air in order to reach the neighborhood of the fire. The theory was that the burning feeders ignited the brattice which was consumed, permitting an accumulation of gas at the face which finally came in contact with the fire, and causing the first explosion. The burning wood was probably extinguished either by this or by the subsequent explosions as at the time of the last examination no traces of wood, smoke or heat could be detected at the point "C" where a solid body of gas was encountered. One more attempt was made after this examination, but an explosion occurred more severe than those before, and it was then decided to flood the mine. As will be seen by the elevations on the map, the vein rises toward the north, and a six inch hole was put down at "D" through which the imprisoned air was allowed to escape. The mine water from the Henry shaft and the slope to the Hillman vein was turned down the shaft and the following pumps were erected at the river and were started the second day after the fire occurred; three No. 10 Knowles, one Duplex Griscolm and one Rotary pump No. 12. About 3,000 gallons per minute was the average quantity of water which was pumped into the mine and this was continued until August 15, when the water was at an elevation of 610 feet. Pumping the water out was started August 24, 1895, and it was necessary in this case to handle the water twice. A

WYOMING COLLY L.V COAL CO

UPPER BALTIMORE VEIN

A - MEN WERE WORKING

B - FEEDERS WERE IGNITED

C - SOLID BODY OF GAS MET WITH

D - BORE HOLE

Duplex Jeanesville pump 10 inch water end and 18 inch stroke and two water cars each holding 1,400 gallons of water, carried the water to the sump at the foot of the shaft. The water cars were run on the inside slope, and it was also down this slope that the Jeanesville pump was moved from time to time.

The water was lifted from the foot of the shaft to the surface by a Knowles pump 12 inch water end, and 3 foot stroke; and a duplex Jeanesville, 8 inch water end, 2 foot stroke.

About 1,500 gallons per minute was the average quantity of water pumped out. On December 24, the scene of the fire was reached and no fire was discovered. The work of cleaning the gangway and pumping the water from the lower levels is being carried on at present, and work will be resumed as soon as possible.

TABLE 1.—*Showing location, etc., of collieries in the Third Anthracite District.*

Name of Colliery.	Name of Operator.	Location—County.	Name of Superintendent..	Postoffice Address.
Barnum shaft No. 1,	Pennsylvania Coal Company,	Marcy township,	Geo. B. Smith, general supt;	Dunmore.
Barnum shaft No. 2,	Pennsylvania Coal Company,	Marcy township,	assistant general supt., Alex.	Dunmore.
Barnum shaft No. 3,	Pennsylvania Coal Company,	Marcy township,	Bryden; assistant supt., An-	Dunmore.
Laws shaft,	Pennsylvania Coal Company,	Avoca,	thony Horan and Andrew Bry-	Pittston.
			den.	
No. 13 shaft,	Pennsylvania Coal Company,	Old Forge township,	do. do.	Pittston.
No. 9 shaft,	Pennsylvania Coal Company,	Hughestown,	do. do.	Pittston.
Nos. 10 and 10 Jr. shafts,	Pennsylvania Coal Company,	Hughestown,	do. do.	Pittston.
No. 1 and 8 shafts,	Pennsylvania Coal Company,	Hughestown,	do. do.	Pittston.
No. 4 slope,	Pennsylvania Coal Company,	Jenkins township,	do. do.	Pittston.
No. 4 shaft,	Pennsylvania Coal Company,	Jenkins township,	do. do.	Pittston.
No. 7 shaft,	Pennsylvania Coal Company,	Jenkins township,	do. do.	Pittston.
No. 5 shaft,	Pennsylvania Coal Company,	Jenkins township,	do. do.	Pittston.
No. 6 shaft,	Pennsylvania Coal Company,	Jenkins township,	do. do.	Pittston.
No. 11 shaft,	Pennsylvania Coal Company,	Jenkins township,	do. do.	Pittston.
No. 14 shaft and tunnels,	Pennsylvania Coal Company,	Jenkins township,	do. do.	Pittston.
Hoyte shaft,	Pennsylvania Coal Company,	Jenkins township,	do. do.	Pittston.
Prospect shaft,	Lehigh Valley Coal Company,	Plains township,	W. A. Lathrop, general supt.,	Wilkes-Barre.
Oakwood shaft,	Lehigh Valley Coal Company,	Plains township,	W. A. Lathrop, general supt.,	Wilkes-Barre.
Midvale slope,	Lehigh Valley Coal Company,	Plains township,	W. A. Lathrop, general supt.	Wilkes-Barre.
Wyoming shaft,	Lehigh Valley Coal Company,	Plains township,	W. A. Lathrop, general supt.,	Wilkes-Barre.
Henry shaft and slope,	Lehigh Valley Coal Company,	Plains township,	W. A. Lathrop, general supt.,	Wilkes-Barre.
Exeter shaft,	Lehigh Valley Coal Company,	Exeter,	W. A. Lathrop, general supt.,	Wilkes-Barre.
Heidelburg shaft,	Lehigh Valley Coal Company,	Pittston township,	W. A. Lathrop, general supt.,	Wilkes-Barre.
Heidelburg slope,	Lehigh Valley Coal Company,	Pittston township,	W. A. Lathrop, general supt.,	Wilkes-Barre.
Maltby,	Lehigh Valley Coal Company,	Maltby,	W. A. Lathrop, general supt.,	Wilkes-Barre.
Delaware shaft,	Delaware and Hudson Canal Company,	Plains township,	A H. Vandling, general supt.,	Scranton.
Pettebone shaft,	Dela., Lacka. & Western R. R. Co.,	Kingston township,	Supt., W. R. Storrs,	Scranton.
Hallstead shaft,	Dela., Lacka. & Western R. R. Co.,	Duryea township,	Supt., W. R. Storrs,	Scranton.
Twin shaft,	Newton Coal Company,	Pittston,	John B. Law, general supt.,	Pittston.
Ravine shaft,	Newton Coal Company,	Pittston,	John B. Law, general supt.,	Pittston.
Columbia shaft,	Old Forge Coal Mining Company,	Duryea,	John B. Law, general supt.,	Pittston.
Phoenix shaft,	Old Forge Coal Mining Company,	Duryea,	John B. Law, general supt.,	Pittston.
Butler shaft,	Butler Mine Company, Limited,	Pittston township,	S. B. Bennett, general supt.,	Pittston.
Schooley shaft,	Butler Mine Company, Limited,	Exeter,	S. B. Bennett, general supt.,	Pittston.
Fernwood shaft,	Butler Mine Company, Limited,	Pittston township,	S. B. Bennett, general supt.,	Pittston.
Chapman shaft,	Butler Mine Company, Limited,	Pittston township,	S. B. Bennett, general supt.,	Pittston.
Forty Fort shaft,	Forty Fort Coal Company,	Forty Fort,	J. L. Crawford general supt.,	Scranton.
Harry E shaft,	Forty Fort Coal Company,	Forty Fort,	J. L. Crawford general supt.,	Scranton.
Babylon shaft,	Babylon Coal Company,	Duryea,	J. L. Crawford general supt.,	Scranton.
Mount Lookout shaft,	Mount Lookout Coal Company,	Wyoming,	J. L. Crawford general supt.,	Scranton.
Bennett shaft,	Thomas Waddell Estate,	Plains township,	Geo. Waddell,	Wilkes-Barre.
Mill Hollow shaft,	Thomas Waddell Estate,	Luzerne borough,	Geo. Waddell,	Wilkes-Barre.

Black Diamond shaft,	John C. Haddock,	Luzerne borough,	James B. Davis,	Plymouth.
Clear Spring shaft,	Clear Spring Coal Company,	Pittston,	J. L. Cake,	Pittston.
Consolidated shaft and slope,	Hillside Coal and Iron Company,	Avoca,	W. A. May,	Scranton.
Elmwood shaft,	Florence Coal Company,	Pittston township,	Eli T. Conner,	Scranton.
East Boston shaft,	W. G. Payne & Co.,	Kingston township,	E. F. Payne,	Kingston.
Ridgewood shaft and slope,	Keystone Coal Company,	Plains township,	John T. Jetter,	Wilkes-Barre.
Katy Did slope,	Robertson & Law,	Avoca,	John M. Robertson,	Moosic.
Stevens shaft and slope,	Stevens Coal Company,	Exeter,	David Evans,	Pittston.
Laflin shaft and slope,	Laflin Coal Company,	Laflin,	W. G. Thomas,	Pittston.
Lancliffe shaft and tunnel,	Langcliffe Coal Company,	Avoca,	R. G. Brooks,	Scranton.
Avoca shaft,	Avoca Coal Company,	Avoca,	W. H. Hollister,	Avoca.
Morning Star tunnnel,	John A. Hutchins & Co.,	Wyoming,	John A. Hutchins,	Wyoming.
Pine Ridge shaft,	Algonquin Coal Company,	Miners' Mills,	George T. Nealley,	Wilkes-Barre.
Laurel Run slope,	Laurel Run Coal Company,	Parsons,	George T. Nealley,	Wilkes-Barre.
Louise drifts,	Raub Coal Company,	Luzerne borough,	C. R. Marcy,	Luzerne.
Bernice drifts,	State Line and Sullivan Railroad Company,	Bernice, Sullivan county,	J. O. Blight,	Towanda.
Westminester drifts,	Westminester Coal Company,	Jenkins township,	J. H. S. Lynch,	Scranton.
Crescent drifts,	Crescent Coal Company,	Jenkins township,	G. W. Milnes,	Scranton.
Miner drifts,	Wm. B. Miner,	Jenkins township,	William B. Miner,	Miner's Mills.
Hunt drifts,	Wyoming Coal and Land Company,	Wyoming,	J. N. Rice,	Scranton.

TABLE NO. 2.—*Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, etc., in the Third Anthracite Mining District for for the year ending December 31, 1895.*

Names of Collieries.	Location.	Total production in tons of coal.	Tons of coal consumed at mines.	Tons of coal sold at mines, local sales.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.
Pennsylvania Coal Company.													
Barnum No. 3 shaft,	Marcy township,	233,834	8,166	.....	225,668	151.50	607	1	2	7,623	21	57	1
No. 13 and Laws shafts,	Pittston township,	175,280	7,687	.....	167,593	149.50	456	5	1	3,537	32	47	1
Nos. 9, 10 and 10 Jr. shafts,	Hughestown,	163,941	9,450	.....	154,491	147.50	542	.....	3	5,219	24	64	.....
Nos. 1 and 8 shafts,	Hughestown,	107,545	1,833	.....	105,712	147	335	2	2	2,740	16	37	.....
No. 4 slope, Ewing breaker,	Jenkins township,												
No. 7 shaft, Ewing breaker,	Jenkins township,							.....	1	.....	.....	.....	.....
No. 4 shaft, Ewing breaker,	Jenkins township,	219,541	14,014	.....	205,527	152.25	721	1	1	8,067	39	55	.....
Hoyte shaft, Ewing breaker,	Jenkins township,							.....	2	.....	.....	.....	.....
No. 5 shaft, No. 6 breaker,	Jenkins township,												
No. 6 shaft, No. 6 breaker,	Jenkins township,	112,835	4,061	.....	108,774	147.50	428	2	7	3,663	29	59	.....
No. 11 shaft, No. 6 breaker,	Jenkins township,							2	1	.....	.....	.....	.....
No. 14 shaft and tunnels,	Jenkins township,	182,416	12,145	.....	170,271	149.75	525	.....	2	5,572	26	66	1
Total,		1,195,392	57,356	.....	1,138,036	149.30	3,614	13	22	36,421	187	385	3
Butler Mine Company, Limited.													
Butler and Chapman shafts,	Pittston township,	118,197	4,500	982	112,715	208	402	1	4	5,831	14	38	1
Fernwood shaft,	Pittston township,	57,831	3,650	721	53,460	155	289	.....	.....	2,667	12	25	.....
Schooley shaft,	Exeter,	45,971	4,800	2,404	38,767	94	248	1	3	2,708	21	30	1
Total,		221,999	12,950	4,107	204,942	181.50	939	2	7	11,206	47	93	2

Lehigh Valley Coal Company.												
Prospect, Oakwood and Midvale shafts and slope,	Plains township,	249,184	18,249	17	230,918	193.20	759	.....	5	4,642	40	82	3
Wyoming shaft and slope, Henry breaker,	Plains township,	80,044	8,325	.....	71,719	.....	155	.....	3	3,065	22	26	.....
Henry shaft, Henry breaker,	Plains township,	131,552	8,582	3,806	119,164	191.50	391	2	3	4,190	21	55	.....
Maltby shaft,	Kingston township,	219,301	14,600	2,538	202,163	155.20	647	8	14	7,378	32	60	.....
Exeter shaft,	Exeter,	189,731	6,039	5,468	178,224	170.95	437	2	8	6,578	5	52	1
Heidelburg slope No. 1,	Pittston township,	91,121	2,229	510	88,382	166.20	217	.....	.....	2,679	9	33	.....
Heidelburg shaft No. 2,	Pittston township,	95,483	8,595	793	86,095	163.20	334	.....	2	3,255	6	34	.....
Total,		1,056,416	66,619	13,132	976,665	173.40	2,940	12	35	31,787	135	342	4
Delaware and Hudson Canal Company.													
Delaware shaft,	Plains township,	225,362	10,134	3,939	211,289	228.75	512	2	5	6,445	15	47	.....
Laurel Run slope,	Parsons,	29,911	840	1,067	28,004	56	.....	.....	.....	919	.....	.....	.....
Total,		255,273	10,794	5,006	239,293	142.37	512	2	5	7,364	15	47	.....
Newton Coal Mining Company.													
Twin shaft, Ravine breaker,	Pittston,	361,011	18,143	14,589	328,279	207.30	739	2	5	15,597	37	52	3
Ravine shaft, Ravine breaker,	Pittston,	.....	.....	.....	.....	.....	131	1	1	.....	.....	17	1
Total,		361,011	18,143	14,589	328,279	207.30	870	3	6	15,597	37	69	4
Old Forge Coal Mining Company.													
Columbia shaft,	Duryea,	16,821	1,342	624	14,855	27.80	13	.....	.....	411	8	1	.....
Phoenix shaft,	Duryea,	212,397	9,822	512	202,063	210.50	482	1	3	8,643	8	47	.....
Total,		229,218	11,164	1,136	216,918	119.15	495	1	3	9,054	16	48	.....
Dela., Lacka. and Western R. R. Co.													
Hallstead shaft,	Duryea,	148,231	20,000	3,282	124,949	172.60	357	3	9	5,064	25	59	.....
Pettebone shaft,	Kingston township,	93,915	6,000	2,759	85,156	166.60	368	3	16	3,130	21	45	.....
Total,		242,146	26,000	6,041	210,105	169.60	725	6	25	8,194	46	104	.....
Forty Fort Coal Company.													
Forty Fort shaft,	Forty Fort,	114,774	6,336	2,834	105,604	135.20	291	1	2	4,440	18	45	.....
Harry E. shaft,	Kingston township,	199,960	11,318	.....	188,642	182.20	422	4	3	7,075	8	60	.....
Total,		314,734	17,654	2,834	294,246	158.70	713	5	5	11,515	26	105	.....

TABLE No. 2.—*Continued.*

Names of Collieries.	Location.	Total production in tons of coal.	Tons of coal consumed at mines.	Tons of coal sold at mines, local sales.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.
Miscellaneous Coal Companies.													
Bennett shaft,	Plains township,	29,776	7,500	2,471	19,805	144.25	71	.....	.....	587	6	10	.. .
Mill Hollow shaft,	Luzerne borough,	109,945	6,400	5,806	97,739	174.15	368	1	3	3,041	17	31	... ..
Black Diamond shaft,	Luzerne borough,	196,689	12,400	10,627	173,662	209.65	433	.....	2	5,825	22	46	.....
Clear Spring shaft,	Pittston,	208,299	10,950	13,476	183,873	199.40	506	3	3	5,740	24	68	.....
Consolidated shaft and slope,	Avoca,	102,415	3,087	1,229	98,099	147.25	381	.....	1	2,998	12	37	2
Elmwood shafts,	Pittston township,	82,345	9,000	2,537	70,808	145.50	365	.....	.....	2,419	17	35	1
East Boston shaft,	Kingston township,	107,126	13,687	4,350	89,089	108.70	461	.....	5	2,799	25	38	.....
Ridgewood shaft and slope,	Plains township,	103,074	8,400	914	93,760	129.90	312	1	4	6,665	8	42	.....
Avoca shaft,	Avoca,	66,151	2,737	1,384	62,030	152.90	294	2	1	2,460	6	35	.... .
Langcliffe shaft and tunnel,	Avoca,	92,020	4,279	857	86,884	170.40	363	.....	3	4,131	9	41	1
Stevens shaft and slope,	Exeter,	153,104	15,512	2,354	135,238	162.90	371	6	7	6,418	22	40	1
Laflin shaft and slope,	Laflin,	3,561	915	117	2,529	12.70	121	.....	2	192	5	20	1
Katy Did slope,	Avoca,	48,763	1,200	1,033	46,530	140	155	.....	.....	1,749	3	20	1
Babylon shaft,	Duryea,	234,935	13,224	1,313	220,398	150.50	270	3	4	7,896	13	62	....
Mount Lookout shaft,	Wyoming,	336,439	18,857	3,295	314,287	174.50	575	2	12	11,897	24	102	1
Louise drifts,	Luzerne borough,	8,002	265	853	6,884	26.50	111	.....	.....	332	2	10	.. ...
Pine Ridge shaft,	Miner's Mills,	204,045	23,180	4,410	176,455	223.20	546	3	3	4,325	21	48	.....
Laurel Run slope,	Parsons,	61,484	4,010	813	56,661	126.20	335	2	3	1,657	12	23	.....
Morning Star tunnel,	Wyoming,	1,850	50	1,300	500	24	13	.....	.....	75	2	3	.. .
Westminster tunnel,	Plains township,	15,903	1,000	55	14,848	161.85	103	2	4	1,200	2	9	1
Miner tunnel,	Plains township,	4,340	227	.....	4,113	11	31	.....	.....	600	1	7	... ..
Crescent tunnel,*	Plains township,	5,800	.....	5,736	64	.....	83	.....	1	290	.....	7	.....
Hunt tunnel,	Wyoming,	10,438	1,605	332	8,501	72	145	.....	.....	1,032	6	9	1
Bernice tunnel,	Bernice, Sullivan co.,	152,141	2,513	1,793	147,835	190.25	312	.....	1	1,440	5	54	2
Total, miscellaneous companies,		2,338,645	160,998	67,055	2,110,592	165.50	6,605	25	59	75,768	264	797	12

* Did not ship coal in 1895.

Recapitulation.

Pennsylvania Coal Company,	1,195,392	57,356	.....	1,138,036	149.30	3,614	13	22	36,421	187	385	3
Butler Mine Company, Limited,	221,999	12,950	4,107	204,942	181.50	938	2	7	11,206	47	93	2
Lehigh Valley Coal Compnay,	1,056,416	66,619	13,132	976,665	173.40	2,940	12	35	31,787	135	342	1
Delaware and Hudson Canal Company,	255,273	10,974	5,006	239,293	228.75	512	2	5	7,364	15	47	.....
Newton Coal Mining Company,	361,011	18,143	14,589	328,279	207.30	870	3	6	15,597	37	69	4
Old Forge Coal Mining Company,	229,218	11,164	1,136	216,918	210.50	495	1	3	9,054	16	48	.....
Delaware, Lackawanna and Western Railroad Company,	242,146	26,000	6,041	210,105	169.60	725	6	25	8,194	46	104	.....
Forty Fort Coal Company,	314,734	17,654	2,834	294,246	158.70	713	5	5	11,515	26	105	.....
Miscellaneous coal companies,	2,338,645	160,998	67,055	2,110,592	165.50	6,605	25	59	75,768	264	797	12
Total for all coal companies,	6,214,834	381,858	113,900	5,719,076	†182.70	17,413	69	167	206,906	773	1,990	25

†Average time worked.

TABLE NO. 3.—*Showing the number of each class of employes at each colliery in the Third Anthracite District during the year 1895.*

Names of Collieries.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total, inside and outside.
	Inside foremen.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Door boys and helpers.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All other company men.	Superintendents, bookkeepers and clerks.	Total outside.	
Pennsylvania Coal Company.															
Barnum 3 shafts,	2	175	177	24	61	27	466	1	4	13	74	48	1	141	607
No. 13 and Laws shafts,	3	126	127	25	35	13	329	1	5	17	62	40	2	127	456
Nos. 9, 10 and 10 Jr. shafts,	2	145	140	38	59	21	405	1	4	13	74	44	1	137	542
Nos. 1 and 8 shafts,	1	93	93	16	32	7	242	1	2	11	50	28	1	93	335
Nos. 4, 7 and Hoyte shafts,	3	192	183	34	46	22	480	2	6	15	125	92	1	241	721
Nos. 5, 6 and 11 shafts,	3	116	98	29	44	8	298	1	4	16	72	36	1	130	428
No. 14 shaft and tunnels,	2	124	156	25	48	10	365	1	3	17	89	49	1	160	525
Total, Pennsylvania Coal Company,	16	971	974	191	325	108	2,585	8	28	102	546	337	8	1,029	3,614
Lehigh Valley Coal Company.															
Prospect, Oakwood and Midvale shafts,	3	143	168	70	98	6	488	1	14	23	166	62	5	271	759
Wyoming shaft,	1	43	43	19	20	3	129	1	5	8	.....	12	.....	26	155
Henry shaft,	2	69	69	47	47	9	243	1	6	7	70	60	4	148	391
Maltby shaft,	1	190	82	63	76	29	441	1	7	18	103	74	3	206	647
Exeter shaft,	1	93	83	43	38	6	264	1	7	11	80	70	4	173	437
Heidelburg shaft,	1	57	59	19	22	2	160	1	7	9	97	58	2	174	334
Heidelburg slope,	1	39	28	13	22	2	105	1	5	5	76	22	3	112	218
Total, Lehigh Valley Coal Company,	10	634	532	274	323	57	1,830	7	51	81	592	358	21	1,110	2,940

Delaware and Hudson Canal Company.															
Delaware shaft,	1	115	121	51	43	20	351	1	5	10	102	12	1	161	512
Laurel Run slope,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total, Delaware and Hudson Canal Company.	1	115	121	51	43	20	351	1	5	10	102	42	1	161	512
Butler Mine Company, Limited.															
Chapman shaft,	2	107	62	28	28	5	232	1	5	8	89	65	2	170	402
Butler shaft,															
Fernwood shaft,	1	73	62	15	26	3	180	1	4	4	69	30	1	109	289
Schooley shaft,	2	55	18	26	21	2	124	1	4	13	65	40	1	124	248
Total, Butler Mine Company, Limited,	5	235	142	69	75	10	536	3	13	25	223	135	4	403	939
Newton Coal Mining Company.															
Twin shaft,	2	172	172	61	64	26	497	3	12	20	130	71	6	242	739
Ravine shaft,	2	51	51	11	11	5	131	.....	.....	.....	.....	.....	.....	.....	131
Total, Newton Coal Mining Company,	4	223	223	72	75	31	628	3	12	20	130	71	6	242	870
Old Forge Coal Mining Company.															
Columbia shaft,	1	1	3	3	.....	.....	8	1	.....	3	.....	1	.....	5	13
Phoenix shaft,	1	100	102	26	30	10	269	1	4	4	161	38	5	213	482
Total, Old Forge Coal Mining Company,	2	101	105	29	30	10	277	2	4	7	161	39	5	218	495
Dela., Lacka. and Western Railroad Company.															
Hallstead shaft,	1	75	79	40	29	7	231	1	19	8	64	33	1	126	357
Pettebone shaft,	1	77	81	51	31	11	252	1	7	7	54	46	1	116	368
Total, Dela., Lacka. and Western R. R. Co.,	2	152	160	91	60	18	483	2	26	15	118	79	2	242	725
Forty Fort Coal Company.															
Forty Fort shaft,	2	52	60	35	20	10	179	1	4	10	43	51	3	112	291
Harry E. shaft,	1	105	115	44	48	18	331	1	6	11	37	32	4	91	422
Total, Forty Fort Coal Company,	3	157	175	79	68	28	510	2	10	21	80	83	7	203	713
Miscellaneous Coal Companies.															
Bennett shaft,	1	12	12	8	4	3	40	1	2	4	10	4	10	31	71
Mill Hollow shaft,	2	71	48	20	33	3	177	1	4	7	83	33	3	131	308
Black Diamond shaft,	2	87	70	24	66	16	265	1	6	17	100	40	4	168	433
Clear Spring shaft,	2	106	112	65	60	33	378	1	5	8	55	55	4	128	506
Consolidated shaft and slope,	2	95	75	18	41	8	239	1	8	9	75	45	4	142	381
Elmwood shaft,	2	60	60	22	29	3	177	1	7	8	82	29	3	128	305

TABLE 3.— *Continued.*

Names of Collieries.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total, inside and outside.
	Inside foremen.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Door boys and helpers.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All other company men.	Superintendents, bookkeepers and clerks.	Total outside.	
East Boston shaft,	2	116	86	29	43	13	289	1	4	10	96	56	5	172	461
Ridgewood shaft and slope,	1	75	70	13	41	10	210	1	4	5	65	25	2	102	312
Avoca shaft,	1	80	50	20	36	10	197	1	3	4	60	26	3	97	294
Stevens shaft and slope,	2	105	75	26	34	4	246	1	5	15	68	33	3	125	371
Laflin shaft and slope,	1	20	15	4	4	.....	44	1	6	8	30	30	2	77	121
Langcliffe shaft	2	110	70	25	39	7	253	1	5	6	60	36	2	110	363
Katy Did slope,	1	52	24	4	16	3	100	1	3	6	24	18	3	55	155
Babylon shaft,	1	62	62	25	28	7	185	1	5	8	19	49	3	85	270
Mount Lookout shaft,	2	200	104	42	62	17	427	1	5	16	71	50	5	148	575
Louise drifts,	2	25	10	4	13	1	55	1	1	4	30	18	2	56	111
Pine Ridge shaft,	3	96	102	66	60	7	334	1	9	11	135	55	1	212	546
Laurel Run slope,	1	52	55	51	23	4	186	1	5	6	70	66	1	149	335
Morning Star tunnel,	1	2	1	.....	.....	.....	4	.....	.....	1	5	2	1	9	13
Westminester tunnel,	1	19	19	4	8	.....	51	1	2	4	30	14	1	52	103
Miner tunnel,	1	11	11	3	3	2	31	.....	.....	.....	.....	.....	.....	.....	31
Crescent tunnel,	1	12	16	11	7	.....	47	1	2	1	.....	32	.....	36	83
Hunt,	1	15	20	16	8	.....	99	1	4	5	8	36	1	55	145
Bernice drifts,	1	152	3	19	20	8	203	1	5	12	74	15	2	109	312
Total, for miscellaneous coal companies,	36	1,665	1,170	520	678	159	4,228	22	98	175	1,250	767	65	2,377	6,605

Recapitulation.

Pennsylvania Coal Company,	16	971	974	191	325	108	2,585	8	28	102	546	337	8	1,029	3,614
Lehigh Valley Coal Company,	10	634	532	274	323	57	1,830	7	51	81	592	358	21	1,110	2,940
* Delaware and Hudson Canal Company,	1	115	121	51	43	20	351	1	5	10	102	42	1	161	512
Butler Mine Company, Limited,	5	235	142	69	75	10	536	3	13	25	223	135	4	403	939
Newton Coal Mining Company,	4	223	223	72	75	31	628	3	12	20	130	71	6	242	870
Old Forge Coal Mining Company,	2	101	105	29	30	10	277	2	4	7	161	39	5	218	495
Delaware, Lackawanna & Western Railroad Co.,	2	152	160	91	60	18	483	2	26	15	118	79	2	242	725
Forty Fort Coal Company,	3	157	175	79	68	28	510	2	10	21	80	83	7	203	713
Miscellaneous coal companies,	36	1,665	1,170	520	678	159	4,228	22	98	175	1,250	767	65	2,377	6,605
Total, for all coal companies.	79	4,253	3,602	1,376	1,677	441	11,428	50	247	456	3,202	1,911	119	5,985	17,413

Table No. 4.—*List of fatal accidents that occurred in and about the mines of the Third Anthracite Mine District for the year ending December 31, 1895.*

Date of Accident, 1895.	No. of Accident.	Name of Person.	Occupation.	Age.	Widow.	No. of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 8,	1	John Cholfa,	Miner,	35	M.	2	Mount Lookout shaft,	Wyoming,	Fatally injured by fall of rock; died on the way to his home.
10,	2	Patrick Moughan,	Barn boss,	50	M.	....	No. 11 shaft,	Jenkins township,	Fatally injured; run over by mine cars; died January 20.
15,	3	John Bilxovski,	Laborer,	25	S.	....	No. 4 shaft,	Pittston,	Killed by fall of rock.
17,	4	Stephen Schultz,	Miner,	30	S.	....	Hallstead shaft,	Duryea,	Killed by a fall of Checker coal while barring it down.
24,	5	James Deegick,	Miner,	30	M.	2	Butler shaft,	Pittston township,	Killed by fall of rock.
28,	6	James Ostroski,	Laborer,	32	M.	2	Babylon shaft,	Duryea,	Killed by fall of rock.
30,	7	James Foget,	Laborer,	26	S.	....	Pettebone shaft,	Kingston township,	Fatally burned by gas in the adjoining chamber; died February 7.
Feb. 21,	8	Thomas Albert,	Miner,	46	S.	....	Harry E. shaft,	Forty Fort,	Albert and his laborer were instantly killed by a fall of rock they were taking down.
21.	9	John Gregavitch,	Laborer,	20	S.	....	Harry E. shaft,		
Mar. 13,	10	Richard Lavrick,	Brattice man,	19	S.	....	Maltby shaft,	Maltby,	Fatally burned by an explosion of gas; died March 15.
29,	11	Peter Kolaski,	Laborer,	25	S.	....	Babylon shaft,	Duryea,	Killed by a blast breaking through a pillar; he went around to listen and got in front of blast.
19,	12	Mathew Saleskey,	Miner,	35	M.	4	Clear Spring shaft,	Pittston,	Fatally injured by fall of rock; died March 30.
April 5,	13	Wm. Paukansky,	Driver,	18	S.	....	No. 11 shaft,	Jenkins township,	Killed by falling under trip of loaded cars.
9,	14	Joseph Staslunis,	Laborer,	26	S.	....	Harry E. shaft,	Forty Fort,	Killed by falling from the cage down the shaft.
18,	15	John Glendining,	Laborer,	30	M.	3	No. 8 shaft,	Hughestown,	Killed by fall of rock while removing pillars.
23,	16	Stanley Sapak,	Miner,	30	S.	....	Twin shaft,	Pittston,	These two men were instantly killed by fall of roof; they had fired a blast, which knocked out three props; then they sat down under the place, when the roof fell on them.
23,	17	Wm. Ostroskie,	Miner,	33	S.	....	Twin shaft,	Pittston,	
27,	18	Charles Donohue,	Laborer,	28	S.	....	Clear Spring shaft,	Pittston,	Killed by falling down a shaft.

May	2,	19	George Hittonois,	Driver,	19	S.	Maltby, outside,	Maltby,	While running in front of cars he fell on track and was instantly killed.
	3,	20	John Vesulcky,	Laborer,	26	S.	Schooley shaft,	Exeter,	Fatally burned by powder; died May 15, 1895. Two other men were burned at the same time.
	7,	21	Edward Ulrick,	Laborer,	49	M. 7	Stevens slope,	Pittston,	Ulrick was instantly killed and Wanko fatally injured, dying same day, by a trip of cars running from the shaft to the breaker. They were repairing the track and thought it was the Lehigh Valley train which was passing at the time when they were called to get out of the way.
	7,	22	John Wanko,	Laborer,	40	M. 2	Stevens slope,	Pittston,	
	9,	23	Lewis Vandermark,	Brattice man,	24	S.	Maltby shaft,	Maltby,	Fatally injured by an explosion of gas; died May 11.
	22,	24	Thomas Hynds,	Miner,	45	M. 3	Mount Lookout shaft	Wyoming,	Instantly killed by a fall of rock while knocking out a prop.
June	4,	25	Mirrian Ellsworth,	Miner,	41	M. 5	Mill Hollow shaft,	Luzerne,	Fatally injured by fall of top coal, which he was taking down; died June 20.
	10,	26	Frank Davitt,	Driver,	16	S.	No. 6 shaft,	Jenkins township,	Killed by a runaway car out of a chamber.
	26,	27	John Finn,	Runner,	23	S.	Pine Ridge shaft,	Miners' Mills,	Killed by a runaway trip of cars on the slope.
	28,	28	Barney Soduski,	Loader,		M.	Exeter breaker,	Exeter,	Killed by being crushed between railroad car and stonework of the breaker.
July	1,	29	Patrick Galligher,	Miner,	48	M. 3	Pine Ridge shaft,	Miners' Mills,	Fatally injured by fall of top coal; died same day.
	15,	30	Joseph Yousofovick,	Laborer,	32	M. 1	Delaware shaft,	Plains,	Fatally injured by fall of coal; died July 21.
	24,	31	Thomas Foy,	Miner,	50	M. 7	Westminster tunnel,	Plains,	Instantly killed by fall of rock in an entrance where he was working.
	25,	32	Victor Buzzi,	Miner,	31	S.	Stevens shaft,	Pittston,	Killed by fall of rock.
	26,	33	Patrick Gorman,	Driver,	14	S.	No. 6 shaft,	Jenkins township,	Fatally injured by a kick from a mule.
	27,	34	Anthony Belgen,	Miner,	26	S.	Ravine shaft,	Pittston,	Fatally injured by fall of rock; knocked out a prop, when it came down on him.
	30,	35	Thomas Dunn,	Runner,	19	S.	Maltby shaft,	Maltby,	Fatally injured by being crushed between car and pillar; died August 4.
	31,	36	Anthony Domkfeki,	Laborer,	25	S.	Stevens shaft,	Pittston,	Fatally injured by fall of rock; died August 5.
Aug.	8,	37	Robert Ryder,	Driver,	16	S.	Avoca shaft,	Avoca,	Killed by a bar, which he told the headman to throw down the shaft.
	9,	38	Patrick Creedon,	Miner,	34	S.	Law's shaft,	Avoca,	Fatally injured by fall of rock; died same evening.
Sept.	4,	39	Patrick O. Boyle,	Laborer,	38	M. 3	Barnum No. 3 shaft,	Avoca,	Fatally burned by powder; died September 10.
	5,	40	Michael McGlynn,	Laborer,	24	S.	No. 13 shaft,	Moosic,	Killed by a premature blast.
	5,	41	Joseph Samuels,	Helper,	17	S.	Pettebone shaft,	Kingston township,	Killed by falling down shaft while playing with another boy.
	16,	42	James Quinn,	Slate picker,	14	S.	Henry breaker,	Plains township,	Killed by being caught in the belt wheel
	26,	43	Lebisle Calsia,	Laborer,	30	S.	No. 8, outside,	Hughestown,	Fatally injured by being run over by a loaded truck of mine timber; died same day.
	27,	44	Michael Condon,	Miner,	55	M. 9	Harry E. shaft,	Forty Fort,	Killed by fall of rock at face of chamber.

TABLE No. 4.—*Continued.*

Date of Accident, 1895.	No. of Accident.	Name of Person.	Occupation.	Age.	Widow.	No. of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Sept. 28,	45	George Dunn, ...	Runner, ...	28	M.	2	Hallstead breaker, ...	Duryea, ...	Fatally injured; his foot caught in guard rail and railroad cars ran over him; died same day.
28,	46	James Ruddy, ...	Laborer,.....	38	S.	...	Laurel Run slope, ...	Parsons, ...	Fatally injured by jumping on trip of cars and being squeezed between cars and pillar; died October 26.
Oct. 14,	47	Edward Gibbons, ...	Miner, ...	51	M.	1	Delaware shaft, ...	Plains township, ...	Killed by fall of top coal.
15,	48	Michael Echock, ...	Laborer, ...	41	S.	....	Exeter breaker, ...	Exeter, ...	Killed; he fell between railroad cars while locomotive was putting them on branch.
16,	49	James Real, ...	Laborer, ...	21	S.	....	Westminster breaker, ..	Plains township, ...	Killed by runaway car on gravity plane.
17,	50	Francis Donohue, ...	Laborer, ...	35	M.	3	Phoenix breaker, ...	Duryea, ...	Fatally injured by being caught between railroad cars at breaker while coupling them.
18,	51	Thomas Harris, ...	Miner, ...	50	M.	....	Pettebone shaft, ...	Kingston township, .	Fatally burned by an explosion of gas; died November 6.
21,	52	William Sink, ...	Miner, ...	42	M.	5	Maltby shaft, ...	Maltby, ...	Killed by a premature blast; he cut the squib too short.
31,	53	Frank Bodwan, ...	Laborer, ...	50	M.	6	Babylon shaft, ...	Duryea, ...	Fatally burned by powder from a cartridge he was handling; died November 2.
Nov. 2,	54	Anthony Klapol, ...	Miner, ...	40	M.	3	Maltby shaft, ...	Maltby, ...	Klapol and his laborer, Pavelek, were instantly killed while taking down roof rock; they had fired a blast, but it did not bring it down and they went to examine it, when it came down on them.
2,	55	John Pavelek, ...	Laborer, ...	36	M.	3	Maltby shaft, ...	Maltby, ...	
8,	56	Patrick Garrigan, ...	Miner, ...	58	M.	....	Henry shaft, ...	Plains township, ...	Fatally injured by a fall of rock on the heading road while he was going home; died November 11.
8,	57,	Thomas Farrington,	Headman, ...	21	S.	....	Forty Fort shaft, ...	Forty Fort, ...	Fatally injured by a runaway car on the slope; died same day.
15,	58,	John Jannisranus, ..	Miner, ...	....	S.	....	Keystone slope, ...	Plains township, ...	Fatally injured by fall of rock; died December 4.

	23,	59	Michael Klingga, ...	Car loader, ...	27	S.	Maltby breaker, ...	Maltby, ...	Fatally injured; while running railroad cars on the branch, the brake iron broke and he fell in front of the cars; died same day.
Dec.	4,	60	Henry Alger, ...	Miner, ...	42	M. 7	Avoca shaft, ...	Avoca, ...	Killed by fall of rock; had fired a blast, knocking out three props, and while standing them it came down on him; his laborer told him the rock was working.
	5,	61	Frank Wodeszeh, ...	Slope headman,.	20	S.	Hallstead shaft, ...	Duryea, ...	Killed by falling in front of trip of cars as he was running to sprag them.
	9,	62	Michael Simititur, ...	Laborer, ...	23	S.	Clear Spring shaft, ...	Pittston, ...	Killed by fall of rock while loading his car.
	14,	63	Thomas Gill, ...	Miner, ...	48	M. 6	Laurel Run slope, ...	Parsons, ...	Fatally injured by fall of top coal in a cross entrance that he was driving.
	16	64	Anthony Rolaski, ...	Driver, ...	18	S.	Stevens slope, ...	Exeter, ...	Fatally injured; while riding on front end of car the mule kicked him off and he was squeezed between car and pillar.
	20,	65	John Holleran, ...	Miner, ...	54	M. 6	Pine Ridge shaft, ...	Miners' Mills, ...	Fatally injured by being struck by a car while running from a blast; died December 22.
	24,	66	Anthony Sedar, ...	Miner, ...	36	S.	Stevens slope, ...	Exeter, ...	Killed by a fall of rock at face of his chamber.
	31,	67	Alex. Young, ...	Pump runner...	45	M. 5	Law's shaft, outside, ...	Avoca, ...	Young McDonald and Rolls were instantly killed, and James Blease dangerously injured by an explosion of boilers on the morning of December 31, 1895. The colliery was not working on this morning. The cause of the explosion is in doubt at present, until the fireman, Blease, shall recover sufficiently to give his statement.
	31,	68	Thomas McDonald, .	Machinist, ...	52	M. 7	Law's shaft, outside, ...	Avoca, ...	
	31,	69	Courtland Rolls, ...	Carpenter, ...	47	M. 2	Law's shaft, outside, ...	Avoca, ...	

TABLE No. 5.—*List of non-fatal accidents that occurred in and about the mines of the Third Anthracite Mine District for the year ending December 31, 1895.*

Date of Accident.	No. of Accident.	Name of Person.	Occupation.	Age.	Married.	No. of Children.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 3,	1	Frank Andrews,	Miner,	35	M.	....	Mount Lookout shaft,	Wyoming,	Leg broken by a blast which he was firing.
3,	2	James Larrey,	Runner,	24	S.	....	Keystone slope,	Plains township,	Back injured by being squeezed between mine cars.
5,	3	Edward Ballcombe,	Driver,	18	S.	....	Pettebone shaft,	Wyoming,	Face and hands painfully burned by gas.
5,	4	Charles Annier,	Miner.	45	M.	7	Mill Hollow shaft,	Luzerne,	Back bruised by fall of slate.
9,	5	**Joseph Feterovick,**	Laborer,	21	S.	.. .	Twin shaft,	Pittston,	Leg broken by being caught between car bumpers.
17,	6	Edward Corcoran,	Driver,	18	S.	....	East Boston shaft,	Kingston township,	Collar bone fractured by being squeezed between cars.
17,	7	**Stephen Comiski,**	Laborer,	28	M.	1	**Exeter** shaft,	Exeter,	Leg broken by coal sliding down the pitch on him.
25,	8	Edward Evelyn,	Slate picker,	12	S.	....	Consolidated breaker,	Avoca,	The small bone of leg broken; struck it against the chute.
26,	9	John W. Fulton,	Door boy,	15	S.	. .	East Boston shaft,	Kingston township,	Arm broken by ice falling down the shaft.
26,	10	Joseph Huffman,	Driver,	15	S.	....	Delaware shaft,	Plains township,	Leg painfully cut by being caught between car and doorpost.
31,	11	David P. Thomas,	Miner,	36	M.	3	Wyoming shaft,	Plains township,	Face and hands burned by gas.
Feb. 2,	12	**Isaiah Winters,**	Oiler,	16	S.	. .	Pettebone breaker,	Kingston township,	Hips painfully bruised by being caught between car and post of breaker.
9,	13	Thomas Lambert,	Track man,	28	M.	2	Hallstead shaft,	Duryea,	Face and hands burned by gas.
10,	14	James Heatin,	Blacksmith,	38	S.	....	Maltby shaft,	Maltby,	Leg broken by the rope while traveling on the slope.
11,	15	John Hurry,	Driver,	14	S.	....	No. 9 shaft,	Hughestown,	**Leg broken by falling in front of cars.**
12,	16	Samuel Jenkins,	Slate picker,	14	S.	....	Pettebone breaker,	Kingston township,	Leg broken while wrestling with another boy in the breaker.
15,	17	Arthur Macrovisk,	Driver,	16	S.	....	Babylon shaft,	Duryea,	Hips bruised; he fell under cars.
15,	18	Joseph Campbell,	Miner,	48	M.	. .	Pettebone shaft,	Kingston township,	Arm broken and side bruised by a premature blast.
19,	19	James Reynolds,	Miner,	27	S.	....	Forty Fort shaft,	Forty Fort,	Face and hands burned by gas.
22,	20	John Samuels,	Miner,	43	S.	....	Pettebone shaft,	Kingston twp.,	Samuels and Linner, his laborer, were painfully burned on face and hands by an explosion of gas.
22,	21	Louis Linner,	Laborer,	38	S.	....	Pettebone shaft,	Kingston twp.,	

Mar.	8,	22	Charles Matukin,	Miner,	28	M.	3	Mount Lookout shaft,	Wyoming,	Face and hands burned; had damp powder and put his light to it to see if it would burn.
	11,	23	William Davis,	Driver,	23	M.		Mount Lookout shaft,	Wyoming,	Breast bruised between car and roof.
	13,	24	Edward Williams,	Driver,	20	S.		Keystone shaft,	Plains township,	Kicked on the stomach by a mule.
	13,	25	Richard Harris,	Runner,	22	M.		Keystone shaft,	Plains township,	Thumb cut off while spragging a car by coal falling from it.
	13,	26	Joseph Koluskie,	Laborer,	31	M.	3	Maltby shaft,	Maltby,	Face and hands burned by an explosion of gas.
	13,	27	Thomas Condron,	Driver,	19	S.		Maltby shaft,	Maltby,	Both ankles broken by the above explosion.
	14,	28	James Parrey,	Miner,	29	M.	3	Hallstead shaft,	Duryea,	Severely injured by a premature blast; the needle broke in the hole and he was taking it out.
	14,	29	Michael Marrian,	Trackman,	23	S.		Harry E. shaft,	Forty Fort,	Painfully bruised; fell off empty trip of cars.
	19,	30	John Stark,	Driver,	16	S.		Delaware breaker,	Plains township,	Toes on right foot cut off by being run over by cars.
	20,	31	William Gordan,	Carpenter,	26	M.		Langcliffe breaker,	Avoca,	Arm broken; while turning up a car with a windlass the crank slipped out of his hands.
	20,	32	Joseph Gisnosky,	Laborer,	28	M.	3	No. 6 shaft,	Jenkins township,	Leg crushed by fall of rock, necessitating amputation.
	20,	33	Michael Povow,	Laborer,	24	S.		Maltby breaker,	Maltby,	Leg broken while trying to sprag a car.
	27,	34	Sylvester Yates,	Driver,	18	S.		Westminster breaker,	Jenkins township,	Severely injured by falling under cars.
	29,	35	Charles Dougherty,	Laborer,	28	S.		Pettebone shaft,	Kingston township,	Windpipe seriously cut by falling on coal while spragging a car.
	30,	36	Patrick Gillespie,	Driver,	17	S.		Delaware shaft,	Plains township,	Leg painfully bruised by falling off a car.
April	1,	37	John Kasavage,	Laborer,	25	S.		Heidelberg No. 2 shaft,	Pittston township,	Neck and back painfully burned by gas.
	9,	38	Anthony Babonis,	Miner,	30	M.	3	Black Diamond shaft,	Luzerne,	Leg broken by a fall of rock.
	15,	39	John Johnson,	Miner,	40	M.	3	Clear Spring shaft,	Pittston,	Skull fractured by a premature blast.
	15,	40	Alex. Shultz,	Driver,	21	S.		Stevens shaft,	Exeter,	Leg broken by being kicked by a mule.
	16,	41	Michael Foka,	Driver,	20	S.		Maltby shaft,	Maltby,	Hip broken by being squeezed between car and pillar.
	22,	42	Thomas Quinn,	Slate picker,	12	S.		Langcliffe breaker,	Avoca,	Arm broken while playing with a truck at noontime.
	24,	43	John Dolphin,	Miner,	35	S.		Barnum shaft,	Marcy township,	Arm broken and otherwise bruised by a blast blown through an entrance.
	24,	44	Thomas Dolphin,	Laborer,	21	S.		Barnum shaft,	Marcy township,	Severely cut about the head by the above blast.
	24,	45	Alex. Latta,	Miner,	47	M.	1	No. 14 shaft,	Jenkins township,	Leg broken by rock falling on bottom and sliding against him.
	24,	46	Michael Purvelanis,	Laborer,	26	S.		Babylon shaft,	Duryea,	Leg severely bruised between car bumpers.
	25,	47	Samuel Sortman,	Miner,	24	S.		Hallstead shaft,	Duryea,	Head cut and body bruised by a premature blast.
May	2,	48	Michael Winson,	Miner,	40	M.	1	Twin shaft,	Pittston,	Arm broken and painfully bruised by a fall of rock.

TABLE NO. 5.—*Continued.*

No. of Accident.	Date of Accident.	Name of Person.	Occupation.	Age.	Married.	No. of Children.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
May	3, 49	Frank Patruskie,	Miner,	25	S.		Schooley shaft,	Exeter,	These men were more or less severely burned by an explosion of powder; they were sitting beside their powder box, when, by some means not satisfactorily known, it became ignited. John Vesulsky was fatally burned at same time.
	3, 50	George Balads,	Miner,	15	S.		Schooley shaft,	Exeter,	
	3, 51	George Smith,	Laborer,	26	S.		Schooley shaft,	Exeter,	
	4, 52	Edward Markem,	Driver,	17	S.		Mill Hollow shaft,	Luzerne,	Severely bruised by being caught between car and prop.
	6, 53	John Gravel,	Miner,	40	M.	7	Stevens slope,	Exeter,	Severely injured by being struck by a rail slipping off a truck while going down the slope.
	7, 54	Joseph Rise,	Laborer,	30	S.		Henry shaft,	Plains township,	Arm broken by fall of rock.
	9, 55	John Babruscake,	Miner,	24	S.		Maltby shaft,	Maltby,	These men were severely burned by an explosion of gas while going into a chamber when told not to do so. Lewis Vandermark was fatally injured by this explosion.
	9, 56	John Stiff,	Miner,	26	M.	1	Maltby shaft,	Maltby,	
	14, 57	John Shoemaker,	Laborer,	28	M.	1	Exeter,	Exeter,	Leg broken by fall of rider coal.
	22, 58	Luke Holland,	Miner,	40	M.		Clear Spring,	Pittston,	Painfully burned by gas.
	23, 59	Thomas Hockridge,	Asst. trackman,	65	M.	1	Delaware,	Plains township,	Leg crushed by fall of rock, necessitating amputation.
	29, 60	Patrick McGee,	Laborer,	24	M.		Bernice drift,	Bernice,	Leg and side painfully bruised between cars on branch.
	30, 61	Charles Burgaskie,	Miner,	25	S.		Mount Lookout shaft,	Wyoming,	Severely cut about the body by a premature blast.
June	4, 62	Morgan Bevan,	Timberman,	35	M.	6	Wyoming shaft,	Plains township,	Bevan and Duddy went in after an explosion to see if any fire was still burning, when another explosion took place, severely burning both of them.
	4, 63	Patrick Duddy,	Fire boss,	34	M.	8	Wyoming shaft,	Plains township,	
	26, 64	John Herman,	Laborer,	37	M.	3	Hallstead shaft,	Duryea,	Thigh painfully bruised by fall of rock.
July	1, 65	Martin Downing,	Miner,	24	S.		Mount Lookout shaft,	Wyoming,	Severely injured by fall of rock.
	1, 66	Joseph Crowell,	Laborer,	23	S.		Mount Lookout shaft,	Wyoming,	Skull fractured by the above rock.
	5, 67	Dennis Madden,	Miner,	42	M.	2	Pine Ridge shaft,	Miners' Mills,	Leg broken by fall of rock.
	8, 68	Frederick Parchaw,	Laborer,	36	M.	5	No. 1 shaft,	Hughestown,	Foot severely cut by rock falling on it.
	11, 69	John Burnes,	Door boy,	14	S.		Harry E. shaft,	Forty Fort,	Painfully bruised by car, he having fallen asleep at his door.

12,	70	Andrew Alexson,	Laborer,	26	M.	1	Mount Lookout shaft,	Wyoming,	Knee fractured and back bruised by fall of rock.
13,	71	John Ballas,	Laborer,	27	M.	3	Hallstead shaft,	Duryea,	Back and legs bruised by fall of rock.
17,	72	James Ferick,	Miner,	53	M.	6	No. 4 shaft,	Pittston,	Arm broken by a premature blast.
20,	73	Edward Mould,	Driver,	20	S.		Pettebone breaker,	Kingston township,	Kicked on the face by a mule.
20,	74	Mathias Minkovitz,	Laborer,	33	W.	1	Hallstead shaft,	Duryea,	Painfully burned on face and hands by powder, while preparing a cartridge.
20,	75	William Hare,	Miner,	45	M.	6	No. 6 shaft,	Jenkins township,	These four men were more or less severely burned on face and hands by an explosion of gas. They were taking a skip off the pillar on the heading to get a brattice up, and were told not to go into the chamber, as there was gas there, but it appears they went up to load a car.
20,	76	Michael Hare,	Laborer,	20	S.		No. 6 shaft,	Jenkins township,	
20,	77	Luke Brady,	Miner,	50	M.	9	No. 6 shaft,	Jenkins township,	
20,	78	James Judge,	Laborer,	22	S.		No. 6 shaft,	Jenkins township,	
24,	79,	James Fox,	Miner,	41	M.	3	Westminster tunnel,	Plains township,	Severely injured by a fall of rock; Foy was killed by this fall.
24,	80	William McDowel,	Miner,	48	M.	5	Maltby shaft,	Maltby,	Side bruised by coal flying from a blast.
25,	81	Michael McHale,	Driver,	17	S.		Heidelburg No. 2,	Pittston township,	Leg broken by being caught between car bumpers.
29,	82	Peter Savadoes,	Laborer,	41	M.	3	Stevens shaft,	Exeter,	Hip dislocated by a fall of rock.
30,	83	George McKechnie,	Plane headman,	19	S.		Pettebone shaft,	Kingston township,	Severely injured by being caught between car and pillar.
30,	84	John Ballico,	Miner,	27	M.		Harry E. shaft,	Forty Fort,	Severely burned by powder that he was carrying.
30,	85	Michael Pocas,	Laborer,	32	M.		Twin shaft,	Pittston,	Leg broken by fall of rock.
Aug. 2,	86	George Stevenson,	Driver,	28	S.		Laurel Run slope,	Parsons,	Hand crushed while in the act of taking block from under wheel of car.
2,	87	George Monjean,	Laborer,	60	M.		Ravine breaker,	Pittston,	Leg seriously bruised between car bumpers.
5,	88	Michael Brunsco,	Miner,	33	M.	1	Mount Lookout shaft,	Wyoming,	Eyes and head cut by flying coal; he went back to a blast which he thought had missed.
6,	89	Thomas Harvey,	Miner,	40	M.		Pettebone shaft,	Kingston township,	Burned on face by gas in going into an abandoned place.
10,	90	William Povstanski	Miner,	32	M.	1	Butler shaft,	Pittston township,	Severely injured by going back to a blast which he thought had mis-ed.
12,	91	Charles Hilbert,	Driver,	19	S.		Exeter shaft,	Exeter,	Foot crushed by car jumping track on him.
13,	92	Frank Wo leszek,	Runner,	20	S.		Hallstead shaft,	Duryea,	Seriously bruised; he fell in front of trip of cars on slope.
13,	93	Charles Galligher,	Engineer,	52	W.	5	Prospect breaker,	Plains township,	Leg crushed between car bumpers, necessitating amputation.
13,	94	Thomas Burnes,	Driver,	16	S.		No. 14 shaft,	Jenkins township,	Thumb cut off by coal falling on it.
17,	95	Peter Davoski,	Driver,	22	S.		Prospect shaft,	Plains township,	Ankle dislocated by coal falling from pillar.
23,	96	John O Boyle,	Driver,	18	S.		Mill Hollow shaft,	Luzerne,	Back painfully bruised; fell under car.
23,	97	James Nortan,	Runner,	24	S.		Crescent drift,	Plains township,	Fingers cut off and back bruised by falling under cars.
26,	98	Robert Crathers,	Driver,	20	S.		Black Diamond shaft,	Luzerne,	Leg broken and bruised by car going off the track on him.
27,	99	John Klopash,	Driver,	19	S.		Maltby shaft,	Maltby,	Painfully squeezed between his mule and a prop.

TABLE NO. 5.— *Continued.*

Date of Accident.	No. of Accident.	Name of Person.	Occupation.	Age.	Married.	No. of Children.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Aug. 27,	100	William Sampson,	Miner,	33	S.	...	Henry shaft,	Plains township,	Severely burned on face and hand by gas.
31,	101	Anthony Kelley,	Runner,	22	S.	...	Forty Fort shaft,	Forty Fort,	Leg painfully bruised between cars.
Sept. 5,	102	John Smith,	Laborer,	21	S.	....	Westminster breaker,	Plains township,	Severely injured by being caught in breaker rolls.
6,	103	James Lanahan,	Driver,	30	S.	....	Langcliffe shaft,	Avoca,	Three ribs fractured by falling under car.
6,	104	Samuel Howal,	Driver,	14	S.	....	No. 11 shaft,	Jenkins township,	Leg broken by car jumping the track on him.
7,	105	William Rainey,	Driver,	14	S.	....	No. 10 shaft,	Hughestown,	Painfully squeezed between car and pillar.
12,	106	Alex. Koryzno,	Laborer,	24	S.	....	Hallstead shaft,	Duryea,	Severely squeezed by car jumping the track on him.
13,	107	Morgan Davis,	Miner,	54	S.	....	Avoca shaft,	Avoca,	Head bruised by fall of rock.
18,	108	Dominick Smith,	Miner,	31	S.	....	Stevens slope,	Exeter,	Back bruised by fall of rock.
20,	109	Louis Johnson,	Miner,	46	S.	....	Prospect shaft,	Plains township,	Ribs fractured by fall of coal.
23,	110	Joseph Linnett,	Laborer,	24	S.	....	Pettebone shaft,	Kingston township,	Face and arms burned by gas.
25,	111	William Zerdoski,	Laborer,	21	S.	....	Clear Spring shaft,	Pittston,	Toe cut off by fall of coal.
26,	112	John Cawley,	Driver,	17	S.	....	Pine Ridge shaft,	Miners' Mills,	Collar bone broken by being squeezed between mule and car.
27,	113	John Nickolitus,	Miner,	31	M.	1	Stevens shaft,	Exeter,	Back painfully bruised by fall of slate.
27,	114	James Walsh,	Runner,	24	M.	....	Phoenix shaft,	Duryea,	Leg broken by car going off the track on him.
27,	115	William Burk,	Driver,	17	S.	....	Pine Ridge shaft,	Miners' Mills,	Teeth knocked out by a kick from a mule.
Oct. 3,	116	Ralph Barnes,	Driver,	17	S.	....	Babylon shaft,	Duryea,	Face painfully cut and bruised by a kick from a mule.
4,	117	John Lokelsk,	Miner,	53	M.	2	Delaware shaft,	Plains township,	Leg broken by a fall of rider coal.
5,	118	William Gallagher,	Miner,	50	M.	6	No. 6 shaft,	Jenkins township,	Ribs fractured by a fall of rock.
5,	119	Rosco Molca,	Miner,	38	M.	2	Butler shaft,	Pittston township,	Seriously injured by a premature blast.
7,	120	Joseph Bennett,	Miner,	28	M.	....	Mount Lookout shaft,	Wyoming,	Hip fractured by fall of rock.
7,	121	Thomas Sospar,	Miner,	36	M.	5	Phoenix shaft,	Duryea,	Cosper and Workoski, his laborer, were severely burned on face and hands by an explosion of gas.
7,	122	Charles Workoski,	Laborer,	19	S.	....	Phoenix shaft,	Duryea,	
9,	123	Patrick McAndrew,	Door boy,	15	S.	....	No. 9 shaft,	Hughestown,	Leg broken; car jumped the track on him.
9,	124	John H. Williams,	Miner,	32	M.	....	Laflin shaft,	Laflin,	Williams' ribs were fractured and Harwood sustained a severe shock; while working in the new shaft the chain broke, while letting down timber to them
9,	125	John Harwood,	Miner,	38	M.	....	Laflin shaft,	Laflin,	

	12,	126	John Danko,	Footman,	28	M. 2	Exeter breaker,	Exeter,	Head severely cut by a piece of coal falling from dump chute.
	12,	127	Joseph Gerrity,	Laborer,	21	S.	Hoyte shaft,	Jenkins township,	Painfully burned on face and hands by gas.
	12,	128	John Small,	Laborer,	23	S.	Hoyte shaft,	Jenkins township,	
	14,	129	Vincent Varinick,	Laborer,	27	S.	Stevens shaft,	Exeter,	Three of his fingers blown off by picking a dynamite cap.
	23,	130	William Brennan,	Driver,	18	S.	Babylon shaft,	Duryea,	Painfully squeezed between car bumpers.
	24,	131	Michael Hughes,	Runner,	19	M.	Henry shaft,	Plains township,	Ribs fractured; fell in front of trip of cars.
	25,	132	Michael Stofka,	Miner,	36	M. 1	Maltby shaft,	Maltby,	Face and hands burned by gas.
	26,	133	Joseph Burdsavich,	Miner,	33	S.	Stevens shaft,	Exeter,	Leg broken by fall of rock.
Nov.	2,	134	Joseph Melvin,	Driver,	16	S.	No. 7 shaft,	Jenkins township,	Foot painfully bruised by a car jumping the track on him.
	2,	135	Daniel Ferry,	Miner,	45	M.	Pettebone shaft,	Kingston twp.,	These men were severely burned about the face and hands, caused by the door boy neglecting to close the airway door after the driver had passed through with his cars.
	2,	136	Fred. Rudge,	Laborer,	30	M.	Pettebone shaft,	Kingston twp.,	
	2,	137	Arthur Urban,	Laborer,	25	S.	Pettebone shaft,	Kingston twp.,	
	4,	138	Francis Mullen,	Co. miner,	34	M.	No. 6 shaft,	Jenkins township,	Neck and hands burned by gas.
	5,	139	James Harrington,	Miner,	56	M. 3	East Boston shaft,	Kingston township,	Shoulder dislocated while putting car on the track by the rail slipping on the block.
	11,	140	John Brennan,	Plane footman,	40	M. 6	Hallstead shaft,	Duryea,	Leg painfully cut by car at foot of plane.
	12,	141	William Malia,	Sinker,	35	M. 5	Mount Lookout shaft,	Wyoming,	Leg broken; while putting rock in the bucket it slipped out of the chain.
	12,	142	John Carpenter,	Driver,	19	S.	Westminster breaker,	Plains township,	Leg broken; his foot caught in the latch on branch and car struck it.
	14,	143	Yetsenti Lopinski,	Laborer,	21	S.	Exeter shaft,	Exeter,	Back bruised by fall of rock.
	14,	144	Jacob Pinkstone,	Driver,	18	S.	Pettebone shaft,	Kingston township,	Severely squeezed between car and prop.
	15,	145	John Urevich,	Miner,	20	M.	Twin shaft,	Pittston,	Face and hands burned by gas.
	15,	146	Arthur Leclaskie,	Miner,		M.	Keystone shaft,	Plains township,	Severely injured by fall of rock.
	21,	147	Barney Rozonskie,	Laborer,	26	S.	Exeter shaft,	Exeter,	Foot severely bruised by being caught between cage and side of shaft.
	21,	148	John Guydosh,	Door boy,	16	S.	Maltby shaft,	Maltby,	Painfully squeezed by car running on him.
	26,	149	John Seter,	Miner,	42	M. 2	Maltby shaft,	Maltby,	Face and hand cut by flying coal from a blast.
	27,	150	Andrew Skeouski,	Miner,	30	M. 4	Mount Lookout shaft,	Wyoming,	Spine fractured by fall of coal.
	29,	151	John Tassinskey,	Miner,	33	S.	East Boston shaft,	Kingston township,	Leg broken by fall of rock.
	30,	152	Samuel Trevalick,	Contractor,	39	M. 7	Pine Ridge shaft,	Miners' Mills,	Leg broken by fall of rider coal.
Dec.	2,	153	Mathias Krugla,	Miner,	30	M. 3	Butler shaft,	Pittston township,	Back bruised and cut by fall of rider coal.
	2,	154	John Dervines,	Miner,	32	M.	Twin shaft,	Pittston,	Face and hand burned by gas.
	4,	155	Patrick Gibbons,	Miner,	58	M. 4	East Boston shaft,	Kingston township,	Head severely cut by flying coal from a blast.
	4,	156	James Wallace,	Driver,	15	S.	No. 8 shaft,	Hughestown,	Painfully injured by being thrown from a mule's back.
	7,	157	Martin Dowing,	Miner,	25	S.	Mount Lookout shaft,	Wyoming,	Face and hand burned by gas.
	10,	158	George Bowan,	Miner,	35	M. 5	Butler shaft,	Pittston township,	Severely injured by coal flying from a blast.
	12,	159	George Pawlick,	Miner,	35	M. 2	Midvale slope,	Plains township,	Leg broken while in the act of barring down coal.
	13,	160	Angus Smith,	Laborer,	20	S.	Exeter shaft,	Exeter,	Back bruised by rock falling on him.

Table No. 5.—*Continued.*

No. of Accident.	Date of Accident.	Name of Person.	Occupation.	Age.	Married.	No. of Children.	Name of Colliery.	Locati n—County.	Nature and Cause of Accident.
Dec.	14, 161	Charles Vanoock, ...	Laborer, ...	30	S.	....	Prospect shaft, ...	Plains township, ..	Pelvis bone fractured by being squeezed between car and pillar.
	14, 162	John Schuveliski, ...	Laborer, ...	....	S.	....	Laurel Run slope, ...	Parsons, ...	Painfully injured by fall of top coal.
	17, 163	William Walbruck, ...	Miner, ...	25	S.	....	Maltby shaft, ...	Maltby, ...	Face and back cut by flying coal from a premature blast.
	18, 164	Thomas Shulla, ...	Miner, ...	45	M.	3	Maltby shaft, ...	Maltby, ...	Severely injured by being struck by a car.
	28, 165	Stanley Martin, ...	Laborer, ...	27	S.	....	Exeter shaft, ...	Exeter, ...	Foot cut off at the instep by a piece of rock falling on it.
	28, 166	George Williams, ...	Miner, ...	35	M.	....	Pettebone shaft, ...	Kingston township,	Severely cut and bruised by a premature blast.
	31, 167	James T. Bleese, ...	Fireman, ...	32	M.	2	Laws shaft, ...	Avoca, ...	Skull fractured by an explosion of boilers.

FOURTH ANTHRACITE DISTRICT.

(LUZERNE COUNTY.)

Wilkes-Barre, Pa., March 10, 1896.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: I have the honor of presenting my fifteenth annual report as Inspector of Mines for the Fourth Anthracite District.

It contains articles on several topics relating to the mines of this district besides the usual statistical tables for the year 1895.

The total quantity of coal mined including the estimated quantity consumed to generate steam at the mines was 8,066,539.45 tons.

Tons mined per life lost was 109,007. Number of widows was 38 and of orphans 97. About one-fourth of those reported as orphans were grown up, but were living at home with their parents. There were 24,669 persons employed in and about the mines at the close of 1895, but during that year the average number of days worked was only 156.18, which shows that the mines were idle nearly half the time.

The mines are generally kept in good condition and are all well ventilated. A larger proportion of inexperienced miners are employed than ever before, and the miners are penetrating deeper and into more dangerous localities year after year. This makes it difficult to keep the number of accidents from increasing.

Very respectfully yours,

G. M. WILLIAMS,
Inspector.

TONS OF COAL MINED DURING THE YEAR 1895.

Lehigh and Wilkes-Barre Coal Company,	2,273,877.80
Delaware and Hudson Canal Company,	1,249,907.65
Susquehanna Coal Company,	1,431,693.25
Kingston Coal Company,	783,003.80
Delaware, Lackawanna and Western Railroad Company,	556,476.80
Lehigh Valley Coal Company,	362,664.45
Red Ash Coal Company,	221,626.55

Parrish Coal Company,	262,503.45
Alden Coal Company,	205,149.60
Plymouth Coal Company,	177,604.25
West End Coal Company,	235,789.00
Hillman Vein Coal Company,	76,917.30
A. J. Davis Warrior Run Colliery,	72,782.05
Hanover Coal Company,	21,287.95
Kidder Coal Company,	38,622.50
The Reynolds and Moyer Coal Company,	62,240.70
Lee Coal Company,	1,496.95
The Wyoming Coal Company,	32,895.30
Total,	8,066,539.35

The estimated tons of fuel consumed to generate steam at the mines is included in the above, equal to 642,872.40 tons. Local sales, 228,671.75 tons.

Number of Fatal Accidents and Tons of Coal Mined Per Life Lost.

Names of Operators.	Number of lives lost.	Tons of coal mined per life lost.
Lehigh and Wilkes-Barre Coal Company,	17	133,757
Delaware and Hudson Canal Company,	7	178,5[illegible]8
Susquehanna Coal Company,	12	119,307
Kingston Coal Company,	6	130,500
Delaware, Lackawanna and Western Railroad Company,	5	111,295
Lehigh Valley Coal Company,	14	25,904
Red Ash Coal Company,	2	110,8[illegible]3
Parrish Coal Company,	1	262,5[illegible]3
Alden Coal Company,	2	102,574
Plymouth Coal Company,		177,604
Hanover Coal Company,		21,287
West End Coal Company,	2	117,894
Hillman Vein Coal Company,	4	19,229
A. J. Davis,	1	72,782
Kidder Coal Company,		38,622
The Reynolds and Moyer Coal Company,	1	62,240
Lee Coal Company,		1,469
The Wyoming Coal Company,		32,895
Total,	74	109,005

Number of Non-Fatal Accidents and Tons of Coal Mined Per Person Seriously Injured.

Names of Operators.	Number of persons injured.	Tons of coal mined per person injured.
Lehigh and Wilkes-Barre Coal Company,	63	36,093
Delaware and Hudson Canal Company,	14	89,279
Susquehanna Coal Company,	58	24,684
Kingston Coal Company,	17	46,059
Delaware, Lackawanna and Western Railroad Company,	18	30,915
Lehigh Valley Coal Company,	21	17,289
Red Ash Coal Company,	1	221,626
Parrish Coal Company,	5	52,480
Alden Coal Company,	11	18,619
Plymouth Coal Company,	3	59,201
Hanover Coal Company,	.....	21,287
West End Coal Company,	3	78,596
Hillman Vein Coal Company,	3	25,639
A. J. Davis,	.....	72,782
Kidder Coal Company,	.....	38,622
The Reynolds and Moyer Coal Company,	.....	62,210
Lee Coal Company,	1	1,469
The Wyoming Coal Company,	.....	32,895
Total,	218	37,001

There were three persons injured in the new Auchincloss shafts who are not included in the above table. Number of widows, 38; orphans, 97.

The production of coal is made up as follows:

Shipped by rail to market (tons),	7,193,895.20
Local sales at the breakers (tons),	228,671.75
Fuel consumed at the mines, estimated (tons),	642,872.40
Total (tons),	8,065,439.35

It is estimated that 30 per cent. of the material mined and hauled out of the mines is dumped on the waste heaps at the collieries. The risk attending the mining hauling and separating this waste, is in the same proportion as that attending the mining, hauling and preparation of the coal sold in market. Adding this loss of 30 per cent. to the coal production, it shows that no less than 11,523,446 tons of material were mined and hauled out of the mines of this district during the year 1895.

The number of persons employed was 24,669. One in 333 was killed or fatally injured, and one in 112 was more or less injured.

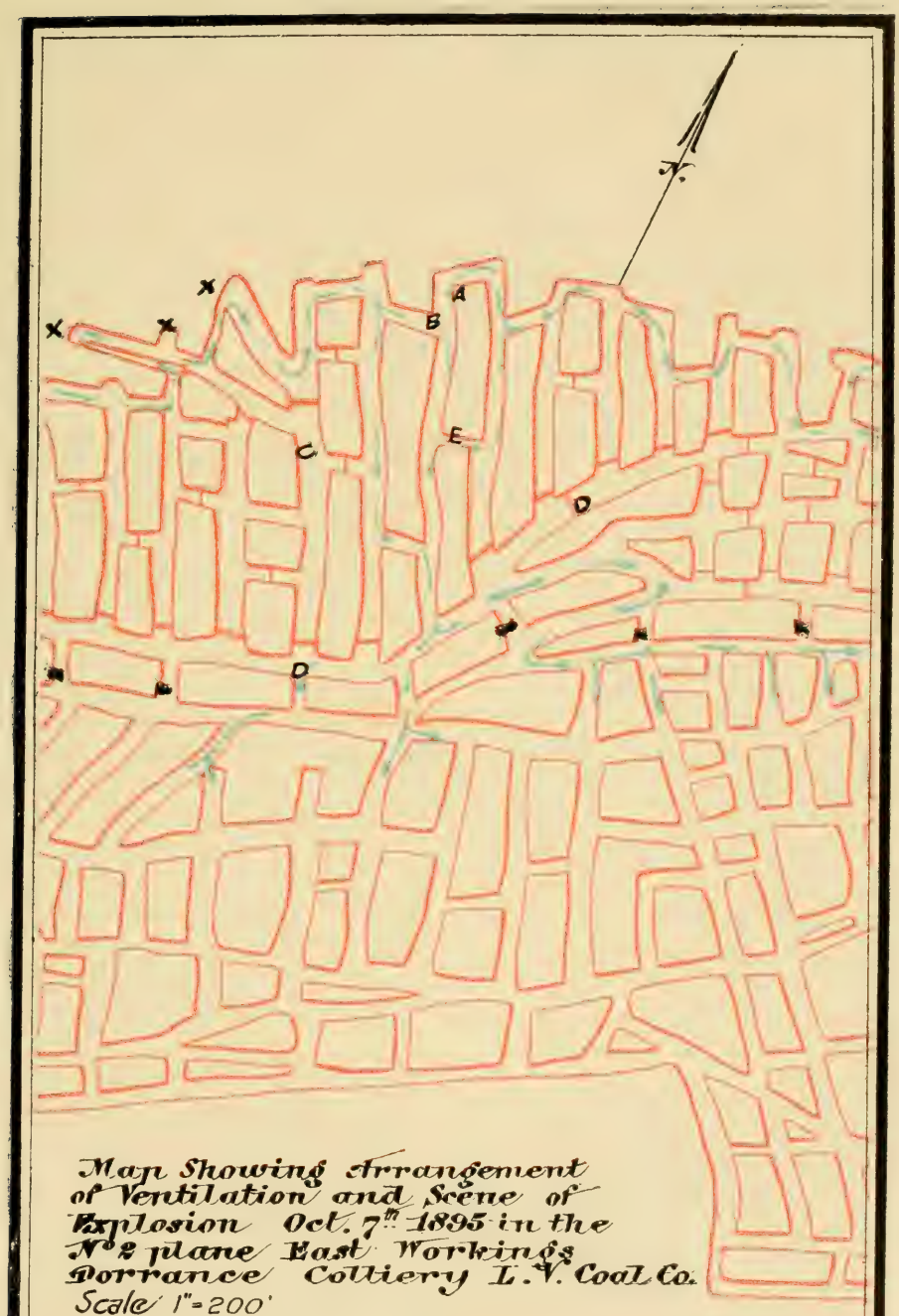
Classified Causes of Accidents.

Causes of Accidents.	Number of fatal.	Number of non-fatal.
By explosions of CH_4 gas (fire-damp),	10	45
By falls of roof and coal,	33	67
By falling down shafts or steep slopes,	2	
By mine cars, underground,	13	38
By explosions of powder and blasts,	5	21
By miscellaneous causes, underground,	7	32
By various causes, on surface,	4	20
Totals,	74	221

It has been repeatedly stated that the most of the mine accidents take place owing to the carelessness of the victims, and thus an impression has been created that the underground workers are less careful than employes in other industries. The assertion that the greater number of the mine accidents are due to carelessness is certainly correct, but it is not fair to assert that mine workers are more careless than men generally are in proximity to danger. Watch people, both male and female, crossing a railroad track in front of an approaching train or crossing a double track street railway or doing anything that is dangerous, and you will see the natural human contempt for danger. In the dark recesses of a coal mine, the various sources of danger are hidden and cannot be seen in the greater number of cases. The experience of a miner should teach him to suspect where danger may exist and to make careful examinations frequently, and it is mostly in cases where appearances lead him to neglect close examinations that the accidents so frequently occur.

Of the ten persons killed in 1895, by explosions of fire-damp, seven were killed by one explosion at the Dorrance colliery on the afternoon of October 7. It happened in abandoned workings that had not been examined on that day, and the simple precaution of examining the faces with a safety lamp would have disclosed the presence of a body of dangerous gas and its ignition would have been easily averted. But this was not done. The fire boss led a party of young mining engineers into the place with naked lights and the explosion with its dire results occurred. The fire boss was familiar with the workings, and evidently appearances led him to go there without previous examination, he believing it safe. (See a description of this accident in another part of this report.)

Besides the ten fatal accidents, there were forty-five more or less severely burned by explosion of fire-damp. That they were not all fatal is chiefly due to the conditions when the gas was fired, and not to the care of the victims. If the quantity of accumulated gas had been larger in each case, the result would have been more serious.



Map Showing Arrangement of Ventilation and Scene of Explosion Oct. 7th 1895 in the No 2 plane East Workings Dorrance Colliery L. V. Coal Co.
Scale 1"=200'
to accompany report of
Inspector of Mines

The dangerous gases which accumulate during the nights or on idle days, are discovered by the fire bosses when making their daily morning examinations, and only when their instructions are disregarded are these accumulations fired, and I am pleased to state that these cases are few, as the discipline which exacts obedience to the rules prevents it. But it is in cases where gas accumulates during working hours, that the most of the accidents occur and where the cases are resting entirely on the care of the persons exposed to the danger. In a gaseous mine, each miner should know the conditions under which fire-damp is likely to accumulate in his working place, so that he might be on his guard lest it be fired before he is aware of its existence. I need not enumerate the various causes for the accumulation of gas during working hours, for they are well known, and if there were no hasty, indifferent miners who are always careless we would have but few accidents to record.

Some people think that if all miners and laborers were compelled to work by the light of safety lamps only, that accidents by explosions of fire-damp would be effectively reduced. This perhaps is true, but owing to the poor light given by the safety lamp, it is believed that a greater number of accidents by falls of roof and coal would occur in consequence.

As usual, falls of roof or of coal were the causes of a large number of accidents. In 1895, thirty-three lost their lives and sixty-five were more or less injured by falls of material, either from the roof, sides or face of the working places. It is remarkable that most of these casualties occur in places looked upon as being comparatively safe where the miners are led to neglect the required precautions. In places that are plainly dangerous the accidents rarely take place. Here the miners and their laborers are incessantly careful and succeed very well in avoiding accidents. If all miners could be prevailed upon to exercise the same assiduous care in places that appear to be safe, the number of this class of casualties would be most certainly reduced.

Another prolific cause of mine accidents is the moving of mine cars underground through the unavoidably narrow passages, and over the diversified grades of the various tracks. In daylight this work would not be so dangerous, but with the very poor light emitted by a mine lamp, all work attending the moving of mine cars becomes to some extent dangerous. In the year 1895 fifty-one accidents of this class occurred, thirteen of which proved fatal. Much depends on the discipline of the driver bosses in reducing this class of casualties. The sufferers are chiefly boys and young men who are full of life, and who need to be watched closely and strictly governed to prevent them from committing deeds of daring recklessness.

To have good roads, clean and wide passages is also needed to prevent this class of casualties, and the writer is making efforts to have these in all the mines of this district.

The accidents from explosions of powder and from blasts, were five fatal and twenty-one non-fatal. Those which occur from explosions of powder at the boxes are invariably the result of carelessness in keeping the lamps or lighted pipes too close to the powder when handling it. The law makes ample provision to prevent this, and only where these provisions are disregarded do accidents of this description occur.

Those which occur from blasts are different. Occasionally one occurs when a hole is being charged by ramming a tight cartridge of powder into a hole that is not round, by the tamping bar striking a spark which ignites the powder and explodes it. But the greater number occur from either cutting the match too short or when the miner is returning thinking the squib has "missed" igniting the powder when it has not, and the blast explodes when he is approaching.

To cut the match shorter than the manufacturer has made it, is most assuredly attended with risk that should not be taken, but I regret to have to state that it has become almost a universal custom. Some do it carelessly, and by twisting off a piece of the match loosen the twist and cause the powder to fall down into the match. Hence the blast explodes quicker than intended and may cause injury of more or less extent to the person igniting the match. A large proportion of this class of accidents occur because the miner fails to watch properly to ascertain when the squib "fires." Neglecting this, and after waiting the time he estimates it requires to fire the squib he returns to try another squib, thinking that the former had "missed" but when on his way to the face and often when near the blast, it explodes, causing the coal to fly in all directions and very often causing him serious injuries.

The remedy for this class of accidents is plainly suggested by the manner of their occurrence and need not be stated here. Where a man's life is at stake he should be very careful to give ample time, yes, more than ample time before exposing himself to the danger of returning unless he is sure that the squib has "missed."

Besides the classes of mine accidents noted above, there are dozens of other ways by which men in the mines and on the surface are either fatally or non-fatally injured. A number are caused by kicks by fractious mules, and this very often is the result of provoking or abusing the mule. Yet the mule is at all times unreliable, for he often kicks without apparent cause and it behooves all who have to pass him in a mine to be careful to avoid him.

Of the accidents which occur on surface I am pleased to state that few only occur in the breakers. The machinery and stairs are at all places so well guarded by boxing and fencing that no person can be injured without climbing or crawling into places where no one is expected to go. Yet we find that some do it occasionally and one now and then is hurt in consequence. Where so many boys are employed they will play "tag" or "hide and seek" and will crawl into dangerous places and get hurt. This can be prevented only by effective discipline. A more rigid discipline would, I believe, prevent a number of the accidents of each year, but with the class of people who are now employed in and about the mines and who can neither speak nor understand the English language, it is almost impossible to enforce the rules and maintain obedience to them.

Disastrous Explosion at the Dorrance Colliery.

At about 4 o'clock Monday afternoon October 7, 1895, an explosion of fire-damp at the Dorrance colliery of the Lehigh Valley Coal Company, Wilkes-Barre, Pa., resulted in the death of seven young men, five of whom constituted a corps of mining engineers. One was a fire boss and the other was a miner. Reference to the accompanying map of that section of the mine will assist the reader to understand the conditions when the accident occurred. The names of the victims were Daniel J. Davies, fire boss; William Jones, mining engineer; William P. Cahill, Llewelyn Owens, Robert Miller and Robert Blanchard, assistant mining engineers and Michael Morris, miner. The engineers had been in another part of the mine making surveys. Daniel J. Davies an experienced fire boss was sent with them to see that all places were safe before they entered. During the afternoon they went into the section of the mine shown on the accompanying map. The two places turning to the left from breast C were working, all those to the right of this had been finished and abandoned, including breast marked C. They surveyed the three places marked x x x and started to go out, but stopped to examine their map at C and found that the cross cut A was not measured and put on the map. Miller and Blanchard were left at this point with the instruments while Jones, Cahill and Owens, led by Davies went across through headings at the faces, intending to measure the said cross cut A. All carried naked lights.

Davies safety lamp was found hanging on his belt when his body was found, which proves that it was not in use at the time.

Shortly after they left Miller and Blanchard a terrific explosion occurred which caused a perfect tornado that blew away all the air stoppings and doors through a wide extent of workings. All the workmen in that seam felt the concussion and it extinguished their

lights. This naturally caused a panic and all made their way out in the dark through the hot dusty atmosphere as quickly as they could.

The men who were at the faces of the places marked x x x were not injured and one of them when groping his way out through breast C found both Miller and Blanchard severely burned, and led them out. Shortly after a rescuing party found the miner, Morris, at D with his clothing on fire and body severely burned. He died that night.

The afterdamp was so dense that the ventilation had to be partially restored, which took several hours before the bodies of the other four were found. They were finally discovered after some searching at the point marked B which evidently was the point where the gas was fired.

They were all within a few feet of each other and all had been instantly killed and as before stated, Davies safety lamp was hanging on his belt. The props were charred at D and at each breast to right for about two hundred feet. This shows that the flame had expanded to a length exceeding six hundred feet and through five or six breasts having a height of fourteen feet or more.

Miller lived until October 10 and Blanchard until October 19, and they were able to tell what they knew of the disaster, but they knew nothing as to the location of the gas nor as to how it was fired.

It is evident that it was fired at B by the fire boss and the three engineers, because it was at this point that their lifeless bodies were found, and the force of the explosion radiated from this place. This point was also the junction of two splits of air currents. They were traveling in the split coming with them from the west side, but the split from the east entered this breast B at two points through the heading A, which they wanted to measure and also through the heading E; both were open. The heading A was on the top bench of coal and the one at E was on the bottom bench. The air currents had been working in this way for several weeks and no one had known of any gas accumulating at A before, and the accumulation now was evidently an unexpected surprise to the fire boss or he would have examined the place with his safety lamp and discovered it. It is a very gaseous mine and is ventilated by two thirty-foot fans which produce strong currents of air. Gas could not have accumulated at this point unless the current of air had been deviated from its proper course or stopped entirely.

The fan which ventilates the workings of the Baltimore seam, where the explosion occurred was stopped for repairs on Sunday, the day previous for about four hours and it is supposed that the gas accumulated during that time at the cross cut A and at the face of the breasts at each side of it, in such a body that the air current on its

restoration failed to remove it and passed all through the cross-cut E, leaving the gas stand at the faces of the breasts. On Monday afternoon when the fire boss and his company reached the point B and started up towards A the gas fired from their naked lamps.

The explosive gas of mines being only one-half the weight of an equal volume of air is difficult to move when it accumulates in such situations as this, unless the ventilating pressure more than equals the difference of weight between the body of gas and an equal volume of air. To force a log of wood to sink into water a pressure must be applied equal to the difference in weight between the wood and its volume of water. It is precisely the same when it is necessary to force a body of light gas into air. A pressure equal to the difference of weight must be applied. In this case the situation was such that if the cross-cut A and the face of the two breasts were filled with gas it was as effective as if a stone wall was there in preventing the air current from passing through that heading, and the result was that all the air passed through the heading E, leaving the gas stand at the faces. The rise in the breasts was from six to eight degrees.

This was the theory presented to the writer by Mr. Lathrop, general superintendent and by Mr. Moister the superintendent, with which the writer fully agrees. After the explosion the door O was found to have been affected by a fall of roof but evidently the fall came after the explosion and could not have caused the accumulation of gas. The body of gas fired was greater than would have accumulated by leaving this door open from the time the fire boss passed in the morning.

Murder of a Man in the Franklin Colliery.

Andrew Yeisley, a Lithuanian miner, was found dead with the appearance of having been killed by a blast in the breast in which he worked on the Kidney seam, old slope Franklin Colliery, Lehigh Valley Coal Company at 6 p. m., Friday, June 14, 1895.

There were only three breasts working on the gangway and deceased was working the inner one. His boarder Anthony Zemitus was working the one next to him. Shortly before 6 o'clock the driver saw Yeisley on the gangway at his box preparing cartridge to blast. The driver went out leaving no one except the two men in that part of the mine.

Shortly after 6 o'clock Zemitus went back to the pumpmen and told them that a man was killed by a blast. The went back and into the breast and found Yeisley's body partially covered with coal with his clothing on fire.

The body was taken home and the undertaker found bullet holes and came to the conclusion that the man had been murdered. On

examination several bullets were found in his head and body. Zemitus was arrested and tried on the charge of murdering Andrew Yeisley, and he was convicted of murder of the first degree at the Luzerne court on February 5, 1896.

Pernicious Laws.

Nearly all laws that have been enacted with a view of relieving the distressed condition of the workingmen of the mines have to a more or less extent infringed upon their liberty and made their life less tolerable.

Excepting the act of 1870, known as the ventilation act which was amended in 1885, and is entitled "An act to provide for the health and safety of persons employed in coal mines." Not one of all the laws enacted has been of benefit to this class of workmen, and some of these laws are doing a great amount of injury.

Some of the changes made in this act in 1891 are objectionable and work to the injury of a large class. The laws which requires that the State assume the responsibility of declaring who is competent to be a mine foreman is wrong, because it deprives the person who may be injured through their incompetency of the right of redress by the parties who employs him. This law has stimulated more reading and a deeper study of the theoretical knowledge required for the successful management of mines, but this could have been accomplished without placing the responsibility of the foreman's competency upon the State.

The act of 1891 through a blunder in introducing the term fire boss, requires that no man can make an examination of a mine unless he also has passed an examination and is the holder of a certificate of qualification from the State. Therefore every fire boss must have his certificate from the State and the States becomes responsible for his competency. After a trial of nearly five years I have been convinced that this law does no good, does not improve the service and takes away the injured man's chance for redress and it costs each miner $3.00 to get his certificate which has to be given to him upon the recommendation of his employer as the one who knows best as to his qualification for the work. After ten years of annual examinations I am satisfied that a man's qualification to be a mine foreman, a fire boss or a miner, cannot be determined satisfactorily by examination in a room. He must be seen at his work and his employer who sees him there is in the best position to know his capabilities.

The law requiring a miner to have his certificate has been the cause of keeping intelligent and experienced men from coming to the region and has enabled the operators to employ every kind of men to

mine coal without their being responsible. Before the enactment of this law, incompetent men were not employed, but now they are employed by hundreds. All is asked of them is to have certificates and they get them.

There are other laws which I could mention which were passed under the pretense of helping the workingman that have been a curse to him. Aside from the acts passed in 1870 and 1885, none have been passed that have been beneficial. These acts have done an immeasurable amount of good. Before 1870 there were no properly ventilated mines, no examinations by fire bosses in the mornings, no second openings, no roofs or cages in shafts, no bridge chains, no safety catches, no maps, no measuring of ventilation and very little attempt to ventilate, no account of accidents, no investigations of accidents, no reports of ventilations. Narrow, dirty and wet roads, careless timbering. Injured men were hauled home in coal wagons and dozens of other things were done which have been vastly improved upon since the enactment of this law.

Examination of Applicants for Mine Foreman or Assistant Mine Foreman's Certificates.

The annual examination of applicants for certificates of qualification for mine foreman and assistant mine foreman was held at the Union street school building, Wilkes-Barre, Pa., on July 10, 11 and 12, 1895. The board of examiners was G. M. Williams, Inspector of Mines; Edward Mackin, superintendent; William D. Morgan and Anthony Werth, miners.

Thirty-six applicants appeared for examination for mine foremen's certificates, of whom the following twenty-six passed satisfactory examination and were recommended to have certificates:

James L. Rees, Centralia.
David Phillips, Edwardsdale.
John Oram, Edwardsdale.
Albert Oram, Edwardsdale.
Mathew J. Davies, Edwardsdale.
Thomas H. Williams, Edwardsdale.
Ralph Parkin, Plymouth.
David T. Evans, Plymouth.
Daniel J. Rees, Plymouth.
Daniel L. Richards, Plymouth.
William E. Hahn, Plymouth.
James H. Williams, Plymouth.
Thomas W. Davies, Nanticoke.
Ivor J. Waters, Nanticoke.
W. Q. Davies, Nanticoke.

Rowland Thomas, Nanticoke.
Robert Smith, Nanticoke.
Edwin W. Davies, Nanticoke.
Thomas Bailey, Glen Lyon.
John Abrams, Glen Lyon.
John J. Griffiths, Luzerne.
Richard McDonald, Parsons.
Daniel C. Richards, Wilkes-Barre.
Andrew Cox, Wilkes-Barre.

Thirty of the applicants for assistant foreman certificates were recommended as having passed a satisfactory examination and received their certificates.

Colliery Improvements for 1895.

Notwithstanding the continued depression in the coal trade through the year, important improvements were made by several of the coal companies. A detailed account of which is given:

Lehigh and Wilkes-Barre Coal Company.

At several collieries of this company minor improvements were made which are not noted, but the important ones are described.

At the South Wilkes-Barre Colliery.

Second opening was driven and completed for the No. 2 tunnel. One new slope 500 feet long having an area 7x12 feet; grade, 12 degrees. One tunnel from Hillman to Hillman seam, 762 feet long, 7x12 feet area. One new gravity plane 200 feet long; grade, 20 degrees.

The Maxwell No. 20 Colliery.

This shaft was completed to the Red Ash seam, the lowest seam in the coal measures. Its size is 12x54 feet to the Baltimore seam, and from there to the Red Ash it is 12x37 feet. Its depth to the tracks at the Baltimore seam is 650 feet. The shaft is equipped with two cages to hoist coal from this part, and two more cages will shortly be put in to hoist from the Red Ash seam a depth of 1,048 feet. A full description of the plant and outside arrangement is found in the following furnished by Mr. Herring, outside superintendent:

Maxwell No. 20 colliery which has recently been put into operation, probably embodies more new features in the construction of its breaker and equipment and the development of its underground workings than any other colliery in the anthracite coal fields. A minimum cost of operating has been the chief aim in all the work

done at this colliery, this consideration being foremost in the adoption of methods of mining, the arrangement of the underground and surface haulage and the equipment of the breaker. While the new Maxwell shaft was being sunk, the Jersey No. 8 workings adjoining this colliery were extended so that when the new shaft was completed, all important gangways and airways, planes and gravity roads were ready for the new operation.

As Jersey No. 8 breaker has been abandoned, all coal hereafter mined from the No. 8 workings will be prepared at No. 20 breaker; this tonnage, in addition to what can be mined in the vicinity of the new shaft, ensures for the No. 20 breaker a larger output than that of any of the other collieries of the company. A very large body of coal lies in the immediate vicinity of the new shaft and as facilities for hauling it are simple, effective and economical, the inside mining expenses should be reduced to a minimum.

The timber work of the shaft is unusually well constructed, and the guides are remarkably true, so that the hoisting is attended with no swinging or jarring and can be performed with great speed and safety. The shaft hoisting engines, a pair of large 28x60 inches of the Corliss type with cast iron grooved drums, constructed by the Vulcan Iron Works of Wilkes-Barre, Pa., do their work in a most satisfactory manner, and with a steam consumption of probably not more than two-fifths of the quantity which would be required for this work by the old style slide valve engines. Notwithstanding that the distance from the foot of the shaft to the surface is 650 feet, these engines can hoist a car of coal every 25 seconds, the time consumed in the actual hoist being but 18 seconds. The engines are arranged to cut off at one-third stroke after the second revolution, attaining sufficient momentum about the middle of the hoist to carry the loaded car the balance of the distance without a further use of steam.

The transportation of the coal on the surface from the mouth of the shaft to the breaker, and the return of the empty cars, is accomplished by gravity roads and automatic car hoists. An improved form of dumping cage is used in elevating and dumping the coal into the breaker, the trouble experienced with the old style cage from frequent dropping of parts of the contents of the car down the shaft, being entirely overcome in the new form. By means of a change in the bottom of this cage all pieces of coal falling from the car are caught in a side chute and dumped into the breaker with the other coal. Five mine cars per minute have been dumped at the top of the breaker with three men at the bottom to handle the cars and two men at the top, one of the latter in addition performing the duties of a "docking boss." Ample provision has been made in the equipment for the reduction of the coal to small sizes, owing to the in-

creasing demand of the market for these sizes, and in order that this extra work required of the breaker may not interfere with the output of the colliery, picking chutes to remove the slate and bone from the coal before it enters the rolls, with extra rolls to break this coal separately and screens for sizing have been provided. As the impurities in the coal are by this provision removed early in the preparation, very little attention need be given the coal after it is sized. The bulk of the mine car material, broken to stove sizes inclusive, is sized and prepared in the usual manner by broken and main screens and their picking chutes. For the small sized material as it comes from the mine cars, including the flat pieces of egg, stove and smaller sizes, special screening surface has been provided, ranging from egg to No. 2 buckwheat screens, with intervening picking chutes, rolls and elevators for breaking the flat pieces of all sizes and returning them to the proper screens for sizing. The slate and bone in the egg, stove and chestnut sizes, in this division of the breaker are removed by automatic chute slate pickers, which can be adjusted to suit the quantity of coal passing over them, and also to remove any desired percentage of bone and slate. They are a great saving in labor, and also a great gain in preparation, as they do their work very satisfactorily and with but little loss of coal going with the slate. In order to secure a large output, together with satisfactory preparation, the number of courses or divisions through which the coal passes has been increased over that of the other breakers of the company, and as a result the chutes are not overburdened with heavy rushes of coal and the picking is rendered less difficult. Arrangements are also made for taking tests on the product of each division before it enters the pockets, and defective preparation can be readily detected and remedied.

The frame work of the breaker is white pine 7x14 inch timber, double posted, and bolted together with break joints, the posts running from the sills on the foundations to the cap at the top of the breaker. There are no intermediate caps. The breaker machinery, which is unusually strong and durable is run by an automatic cut off engine, costing probably 20 per cent. more than the style of engine heretofore used for this purpose, but undoubtedly the more economical on account of its low steam consumption. The full boiler pressure acts on the piston of the engine, and a shaft governor regulates the distance the steam follows the piston in its movements, allowing the steam in the cylinder to expand after the supply has been cut off.

The boilers at this colliery are all of the high duty water tube type, and supply nearly three times as much steam for a given quantity of coal as the old type of cylinder boilers, thus effecting a great saving in the cost and operation of the plant. The exhaust steam from the breaker engine is used for heating the breaker in rather a

different manner than that heretofore employed. There is no back pressure on the piston caused by forcing the steam through the breaker, the pipes from the exhaust being very large and the steam conducted at once to the highest point required. From this point the steam travels downward through the system of pipes, with the condensed water, thus utilizing the heat in the latter, as well as the latent heat in the steam. The water which collects in the pipes is let off by traps which adjust themselves to any pressure, the heating pipes in the breaker by this arrangement taking the place of surface condensers and assisting, instead of retarding the breaker engine in its work. The pipes are also connected to a pipe direct from the boilers by means of an automatic reducing valve, which is set to supply steam from the boilers when the pressure in the pipes has fallen 8 pounds below atmospheric pressure. This arrangement provides for the heating of the breaker when the breaker engine is not in service.

Operations at the new colliery were commenced on the 16th day of December, 1895, and up to the present time no changes throughout the entire breaker have been required. The daily output is not yet up to the maximum, but before a great while it is expected that the colliery will be able to ship 4,000 tons daily.

No. 9 Sugar Notch.—One tunnel through rock from Twin to Ross seam 351 feet long, 7x12 feet area.

Lance No. 11.—Two new Sterling boilers, 125 horse power each. A thirty-five foot fan is in course of erection on the new aid shaft which was sunk in 1894.

Improvements by the Delaware and Hudson Canal Company.

Baltimore Tunnel Colliery.—A new gravity plane was made extending towards the outcrop 600 feet.

No. 2 Baltimore Colliery.—The inside slope was extended to a length of 1,000 feet and is being continued.

Boston Colliery.—The new shaft was completed to the Red Ash seam which was cut at a depth of 475 feet. Its size is 12x33½ feet.

No. 3 Plymouth.—A new breaker to replace the structure which was burned on November 15, 1894, was finished by July, 1895, in which month it started to prepare coal, and worked seven and three-fourths days. It was erected about 300 feet west of the location of the old one which is a very desirable improvement. A pair of first motion hoisting engines with a brick engine house has been erected at the shaft, and the whole plant and outside arrangement is now in a satisfactory condition.

A new breaker is in course of erection at the new No. 5 shaft which was sunk and completed last year. The shaft is equipped with machinery and they are now commencing to drive gangways in the Red Ash seam.

Improvements by the Susquehanna Coal Company.

This company drove a tunnel from the George to the same seam which is 700 feet long.

Two tunnels were also driven which are not yet completed. One from the Mills to the Mills seam 8x14 feet area which is now 300 feet long. The other tunnel is from the Hillman to the Hillman, through an anticlinal, having an area of 8x14 feet and is also 300 feet long.

The Kingston Coal Company.

In the No. 1 colliery an air shaft has been sunk from the Cooper to what is thought to be the Bennett seam and a short tunnel has also been driven from the Checker to the Bennett seam. The size of the shaft is 8x10 feet; depth, 125 feet; size of tunnel, 7½x12 feet and 250 feet in length.

Lehigh Valley Coal Company.

At the Dorrance colliery a new slope has been driven from the Hillman seam through the rock on a grade of 7 degrees to the Baltimore seam and following that seam on the north rib of the anticlinal. Its length is 1,300 feet and size 8x12 feet.

At the Franklin colliery a slope has been sunk from the outcrop on the next small seam above the Baltimore. It is 1,000 feet long and will work the upper lifts of said seam. A new fan has been also erected at this colliery to ventilate the upper seams. It is fifteen feet in diameter and operated by a vertical engine. It is the first machine put up in this district to act as a forcing fan. The conditions here are favorable for that, but in gaseous mines where the haulage roads would be the return airways such a method is not practicable.

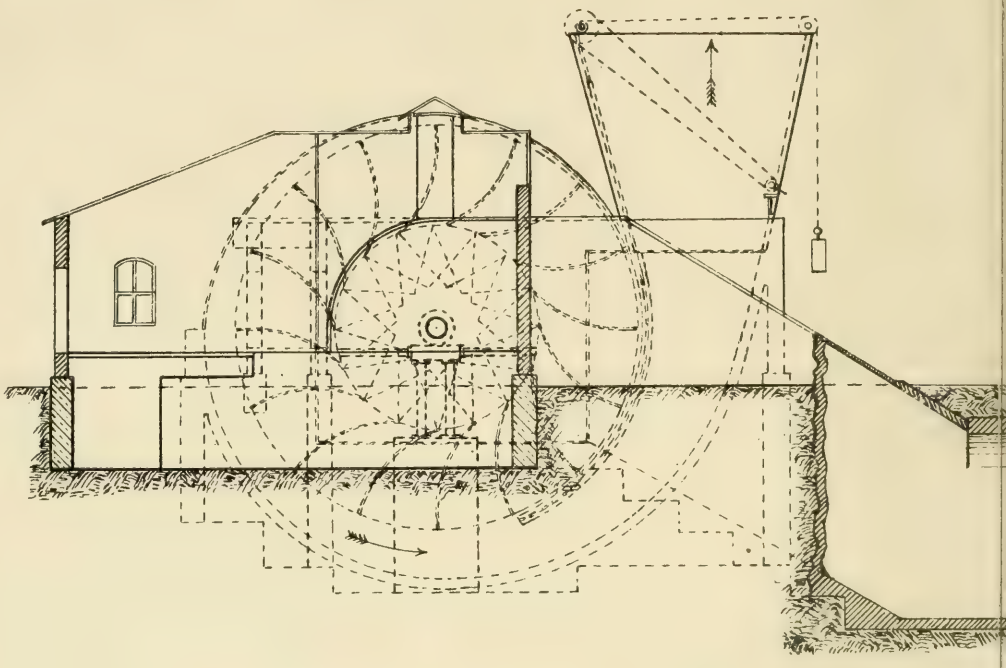
The Parrish Coal Company.

The inside slope in this mine has been extended to a length of 3,814 feet. It was 3,216 feet before.

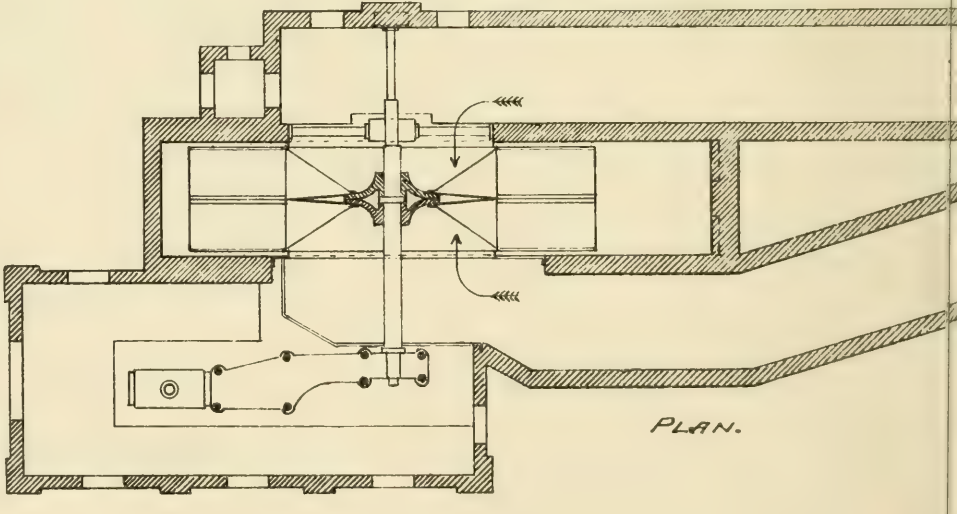
At the Buttonwood colliery two tunnels have been driven, one for coal haulage from the Hillman to the Kidney 335 feet long, and one for ventilation and "second opening" from the old Bennett to the Hillman seam. This is 62 feet long and has an area of 70 feet.

New Breaker at Warrior Run Colliery.

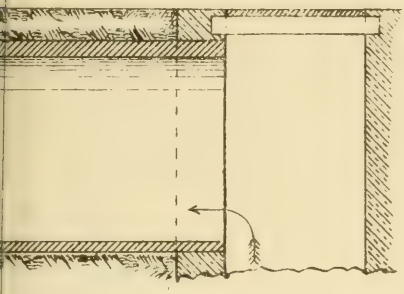
The old breaker having worn beyond the power of repair has been replaced by a new one having a capacity of about 1,000 tons per day. The machinery and stairs are boxed and fenced in a satisfactory manner. The old one was abandoned at the beginning of

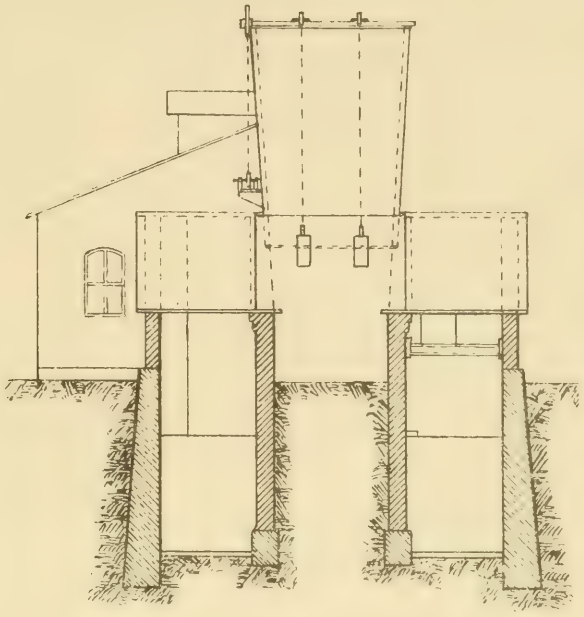


ELEVATION.

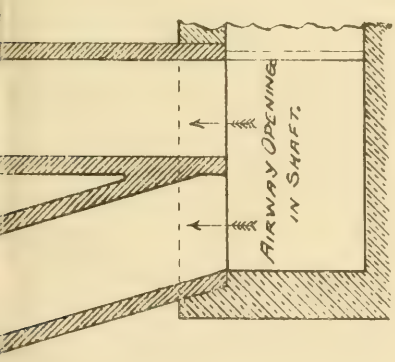


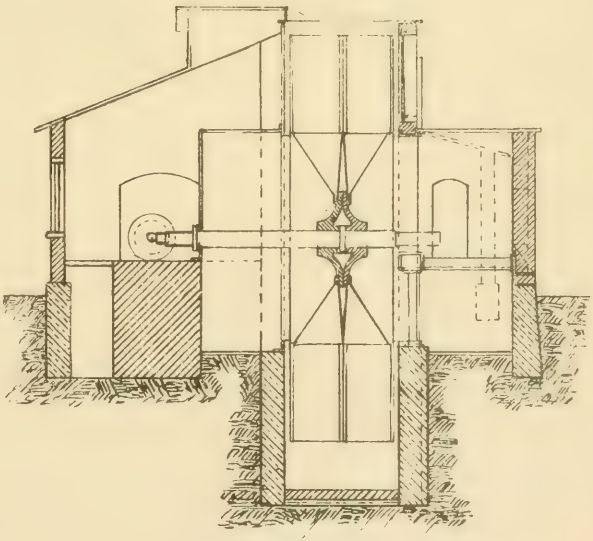
PLAN.





SECTION THROUGH AIRWAY.





SECTION THROUGH FAN.

35FT FAN.
D.L & W.R.R COAL DEP.T.
SCRANTON, 1895.

Erected at Bliss and Woodward Collieries &.

July and the new one worked ten days in November, 1895. A new twenty foot fan has been also erected instead of the old one at the air shaft. It is operated by a vertical engine. Running 62 revolutions per minute it exhausts 88,000 cubic feet of air with a water gauge of 1.8 inches.

The Lee Coal Company.

The Lee colliery passed out of the hands of the Newport Coal Company and into the hands of the Lee Coal Company. They sunk a shaft a depth of 200 feet and erected a fan seventeen feet in diameter, operated by a vertical engine. It was ready at the close of the year but had not been started. The colliery worked only twelve days in 1895.

Improvement by the Delaware, Lackawanna and Western Railroad Company.

Avondale.

A new air shaft 12x21 feet has been sunk, striking the Red Ash vein near the head of No. 2 slope workings to give it more effective ventilation and a sixteen foot fan was erected which, running 65 revolutions is exhausting 67,350 cubic feet of air per minute.

A compressed air pumping plant is being installed, consisting of a 14 and 23½x24 cross compound condensing Corliss engine with 17 and 28x24 Riedler air cylinders which is to furnish air at 150 pounds pressure to operate a cross compound Riedler pump, having plungers 5½ and 7¾x18.

This pump is to operate on a lift of 780 feet, taking the place of three steam pumps. It is expected also to reduce the temperature of the air and improve the effects of the ventilation.

Woodward.

A tunnel from the Red Ash shaft level to the foot of the Baltimore slope a distance of 2,700 feet has been completed.

A 35 foot fan of the same construction as described has been erected at Bliss mines, also a 16 foot diameter Guibal fan has been erected, the former taking the place of a 20 foot direct connected, and the latter a 16 foot open fan.

Both show much greater efficiencies, which together with their ability to run at higher speeds, have resulted in a marked increase in the ventilation. The 16 foot Guibal fan is driven from the engine by manilla ropes instead of a belt.

Bliss.

On September 17, 1895, this new colliery was started to prepare and ship coal for the market. It had been in course of construction

since 1892, when ground was first broken to sink the shaft. The machinery and every structure connected with it is of the best order. They are working at present three seams of coal, and the ventilation is produced by a thirty-five foot fan of excellent construction somewhat different from the other fans in use here, a drawing of which is here presented showing the construction and setting. The fan shaft is 15 inches in diameter and 20 feet 3 inches between centers of bearings of which there are only two. It is operated by a direct acting Corliss engine 28x48 inches. The breaker was completed in 1895.

The coal is taken from the shaft to the breaker by a Dodge conveyor, having flights 10x48 inches every 4 feet, up an incline of 20 degrees and 230 feet long.

It is intended to use self dumping cages in the shaft, which will dump into a small pocket at the surface landing, from which the coal will be fed into the conveyor. There is also provided a Coxe dump, by means of which the coal brought to the surface from adjacent tunnels and slopes can be dumped into the conveyor.

The conveyor is carried from the ground to the breaker on an iron bridge of two spans.

The breaker and conveyor are driven by a 22x48 Corliss engine, and the breaker is equipped with 18 6 foot and 8 foot 4 inch x 12 foot screens, and 5 pairs of rolls with the necessary elevators and lip screen conveyors.

Coal for the boiler is taken from the breaker to boiler house by a conveyor. At the shaft an iron tower has been erected, carrying shieves 13 feet diameter.

The shaft has been walled with concrete of an average thickness of 4 feet, for a depth of 120 feet.

A duplex Rand air Compressor has been installed, also a small electric generator, which runs a pump on the Ross slope about 5,000 feet distant from the generator, which also furnishes light for the various engine rooms, both at Bliss and Auchincloss.

Auchincloss.

The shaft sinking has been continued throughout the year, except for a few weeks when scarcity of water prevented. The main shaft having reached a depth of 1,427 feet, and the second opening 1,377 feet, with the close of the year.

Description of Compressed Air Motor Haulage Plant at the Susquehanna Coal Company's No. 6 Colliery, Glen Lyon, Pa., March 1, 1896.

This plant consists of a three stage air compressor, built by the Norwalk Iron Works Company, supplying air at 600 pounds per

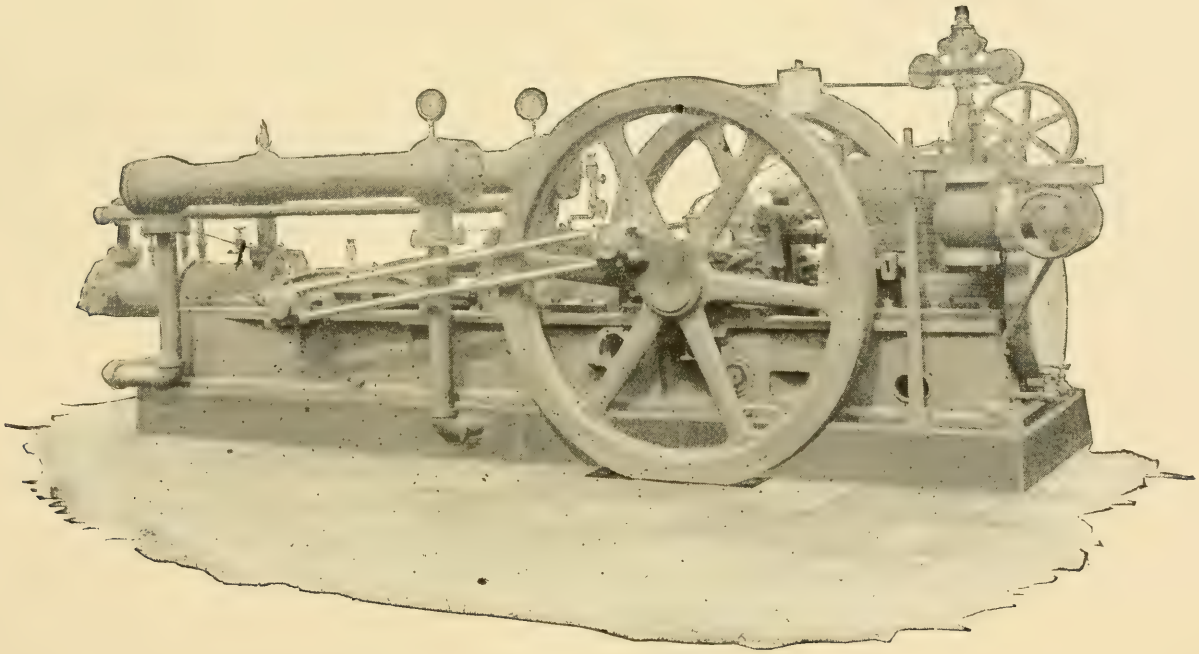


FIG. 1.—AIR COMPRESSOR.

square inch pressure into 4,400 feet of 5 inch wrought pipe, which passes down the shaft about 800 feet to a gangway level, and into the same 3,400 feet, supplying three charging stations, one at the shaft foot, one at the end of the pipe and one intermediate between these, for charging the tanks of a 10 ton pneumatic locomotive built by H. K. Porter & Co., Pittsburgh, Pa., which is used for hauling mine cars from the foot of the shaft in and out the gangway, about one mile each way.

The railroad is 30 inch gauge, has an average grade of 1 7-100 per cent. and a maximum grade of 2 8-10 per cent. in favor of the loaded cars going from the face of the gangway towards the shaft. About 400 feet from the shaft, the track makes a turn of a half circle through a tunnel by two right angle curves of 23 feet and 35 feet radius, respectively, with a 70 foot tangent between, the balance of the track is comparatively straight and all the curves of easy radius.

The locomotive hauls trains of about 16 cars, the weight of each car being about 2,500 pounds empty, and 9,200 pounds loaded.

The compressor for this plant shown in cut (Fig. 1) is of the three stage type, the air being drawn into an intake cylinder 12½ inch diameter, 24 inch stroke, shown near the center of the machine, where it is compressed to a comparatively light pressure and delivered hot through one of the intercoolers, shown on top of the machine, consisting of an iron casing filled with thin copper tubes through which cold water is constantly circulating, in which it parts with the heat attained by the first compression and reaches the second compressing cylinder 9½ inches diameter, in which it is further compressed, sent on through a second intercooler and finally further compressed to its final pressure of 600 pounds per square inch, in a third cylinder of 5 inches diameter, whence it is delivered to the line pipe. All the cylinders are water jacketed to assist in reducing the temperature of the air during compression, and are of very solid construction. The air valves are of special design forged in one piece to prevent any part working loose, and valves and seats may be removed from the outside of the machine for adjustment and repairs. The steam cylinder of the compressor is 20 inches diameter by 24 inches stroke provided with a "Mayer" cut off valve and directly connected to the three air cylinders which are all of the same stroke, and also connected to the two large and heavy fly-wheels shown, all being mounted on one heavy bed plate, making a very smooth running machine.

As the atmosphere in the vicinity of collieries is usually charged with a considerable quantity of dust, the air is supplied to the compressor through a washer, designed by the company's chief engineer, by which all dust and grit are removed from it before compression, which results in a great saving of wear on the valves, cylinders and

other rubbing surfaces of both compressor and motors and prevents enlargement of leaks, caused by dust in air under this high pressure cutting like a sand blast.

The capacity of the compressor is 275 cubic feet of free air per minute compressed to 600 pounds per square inch, with the compressor running at 100 revolutions per minute. This quantity being more than sufficient for two locomotives, the compressor is operated at an average speed of only about 40 revolutions per minute, being controlled by an automatic regulating valve, which allows a speed just sufficient to maintain the required pressure in the air main. The air from the compressor goes to a line of 5 inch wrought pipe 4,400 feet long, passing from the compressor house about 200 feet to the head of the shaft, thence about 800 feet down the shaft and 3,400 feet along the locomotive gangway. At the foot of the shaft is placed a heavy cast T with several feet of pipe below it to collect any condensed moisture, the bottom of the separator thus formed being provided with a water waste valve. Along the gangway are three charging stations, and at each is a gate valve in the main pipe enabling any section to be cut off in case of accident and the air blown off to admit of repairs without the necessity of blowing off the entire main and the consequent stoppage of work, and saving the time required for pumping up the entire main to 600 pounds.

This 5 inch main also acts as an air reservoir for the compressor, having a capacity of 580 cubic feet of air at 600 pounds pressure, equivalent to 23,000 cubic feet of free air. The use of the pipe itself as a reservoir is a novel feature of the plant, dispensing with large and costly receivers underground, and admitting of as many charging stations as may be desired and their location at any point along the main. The size of the pipe will of course be determined by the length of the line and the required reservoir capacity, extensions being made with much smaller pipe drawing from the large pipe as a reservoir.

The pipe was purchased from the American Tube and Iron Company, and each length tested to 1,500 pounds per square inch before shipment.

The majority of the joints are coupled by the extra heavy wrought coupling shown in cut (Fig 2)), the ends of which are counterbored to allow of caulking in lead or copper if desirable.

At all the charging stations and special castings as well as at intervals of about two hundred feet along the line, flange couplings as shown in (Fig. 3) are used, these consist of heavy cast flanges 12 inches diameter and 2½ inches thick, rough bored to take the pipe which is then expanded into them by a special tube expander and the ends riveted into the recess shown, and hammer faced flush with the counterbore; the flanges are counterbored 1-32 inch deep and 7

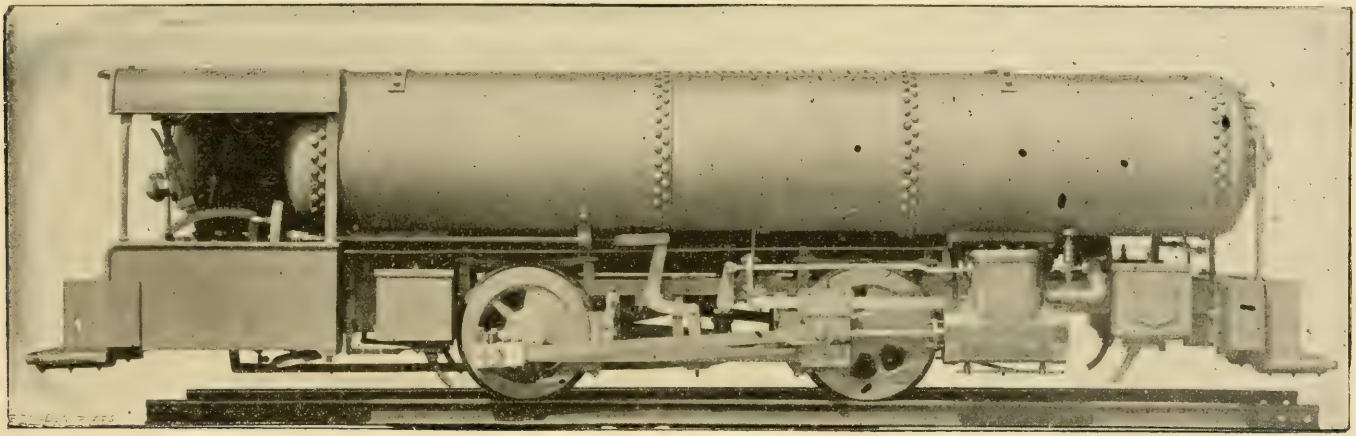


FIG. 5. -PNEUMATIC LOCOMOTIVE.

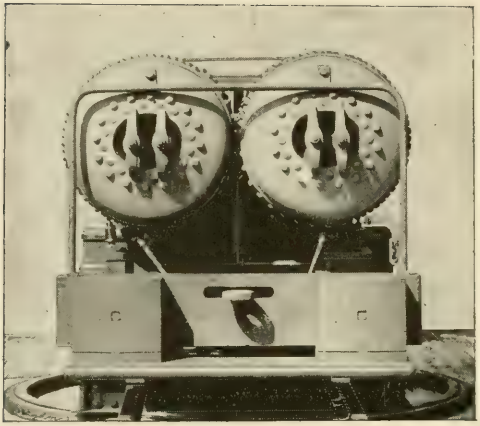


FIG. 6.—PNEUMATIC LOCOMOTIVE.

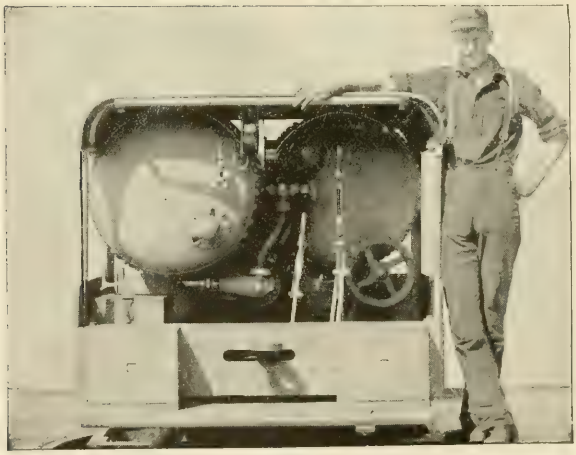
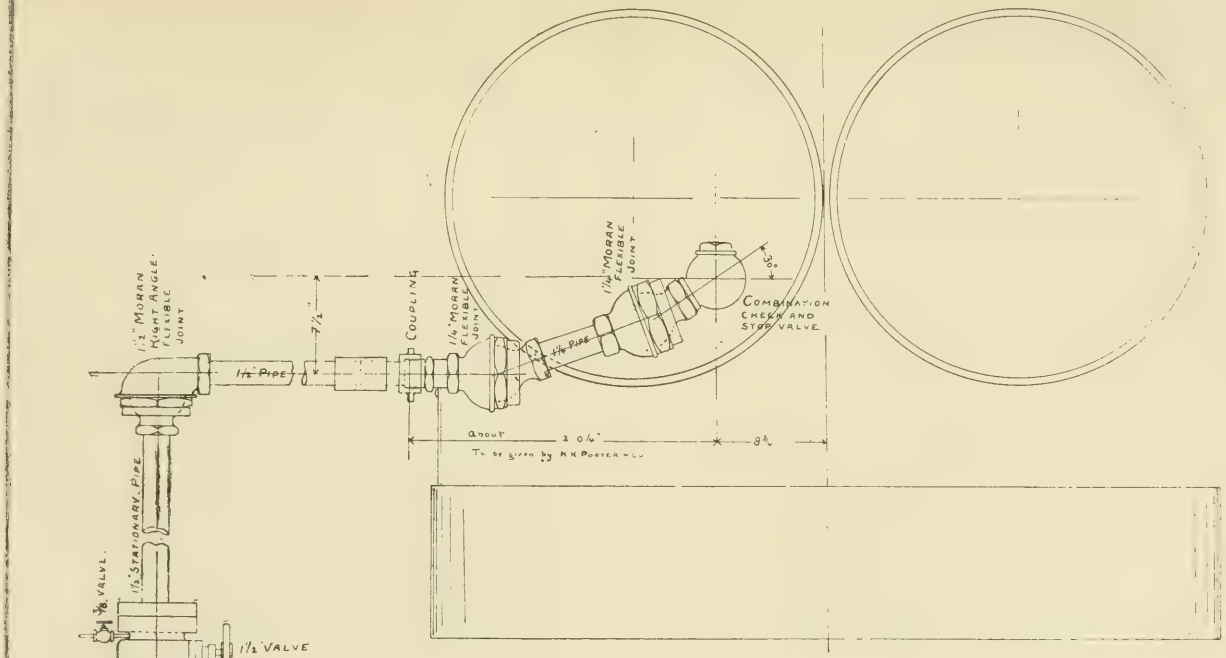


FIG. 7.—PNEUMATIC LOCOMOTIVE.



N°4. CHARGING CONNECTIONS

FOR

H.K PORTER & Co COMPRESSED AIR LOCOMOTIVE.

SUSQUEHANNA COAL Co GLEN LYON PA.

WILKES-BARRE PA 11 SEPT 1895 SCALE 2" = 1'

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inches diameter to retain the gaskets which are of lead or of "vulcanized fibre."

The charging stations as shown on cut (Fig. 4) consist of a cast T on the main pipe with 1½ inch opening, on which is placed a heavy gate valve and a "Moran" right angle flexible coupling with a sufficient length of extra heavy pipe ending in a half screw coupling to reach the charging pipe of the locomotive, which contains two "Moran" flexible joints, and ends with the other half of the screw coupling, the whole being so flexible that a considerable latitude is permissible in stopping the locomotive in position to connect to the charging pipe. The whole operation of charging consumes 1 to 1½ minutes, and reduces the pressure in the main from 580 to 570 pounds. On the outlet side of the charging gate valve is a ⅜ inch bleeder valve as shown, which is used to exhaust the compressed air from the coupling pipe after charging and before the screw coupling is opened.

The pneumatic locomotive shown in side and end views on cuts (Figs. 5, 6 and 7) consists essentially of a 7x14 inch cylinder locomotive with the boiler replaced by air storage reservoirs. It is 62 inches wide, 60 inches high and 17 feet 6¾ inches long over the bumpers, and weights 18,400 pounds. The port openings in the cylinders were specially designed for the use of compressed air, being much larger than the standard for steam locomotive practice, with the result that there is practically no back pressure in the cylinders and no trouble has been experienced from freezing of the exhaust.

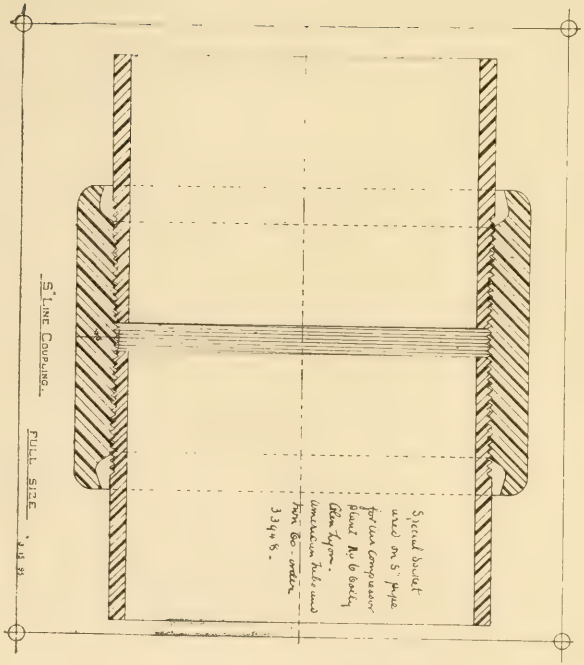
The air for propelling the motor is stored in two large steel tanks with a combined capacity of 130 cubic feet, the tanks being located between the cylinders on a saddle, much after the manner of a steam boiler. These tanks are built for a working pressure of 600 pounds per square inch, and are tested to hydraulic pressure of 1,000 pounds before being placed in service, and are made absolutely tight under this pressure. Convex heads are placed at both ends of storage tanks, the front head being furnished with large manhole reinforced with steel castings, and all connections screwed into the tank are reinforced with cast steel flanges. All parts carrying pressure are tested to 35 to 50 per cent. above working pressure, and are made absolutely tight at such pressure. The tanks are constructed for a large factor of safety, and are so designed as to insure absolute safety at a much higher working pressure than they are designed to carry. The air from the two main storage tanks is conducted through connections to an auxiliary reservoir of much reduced diameter, placed below and between them. The pressure in this auxiliary tank can be regulated anywhere from 30 up to 140 or 150 pounds, as required, the air being reduced from the main storage

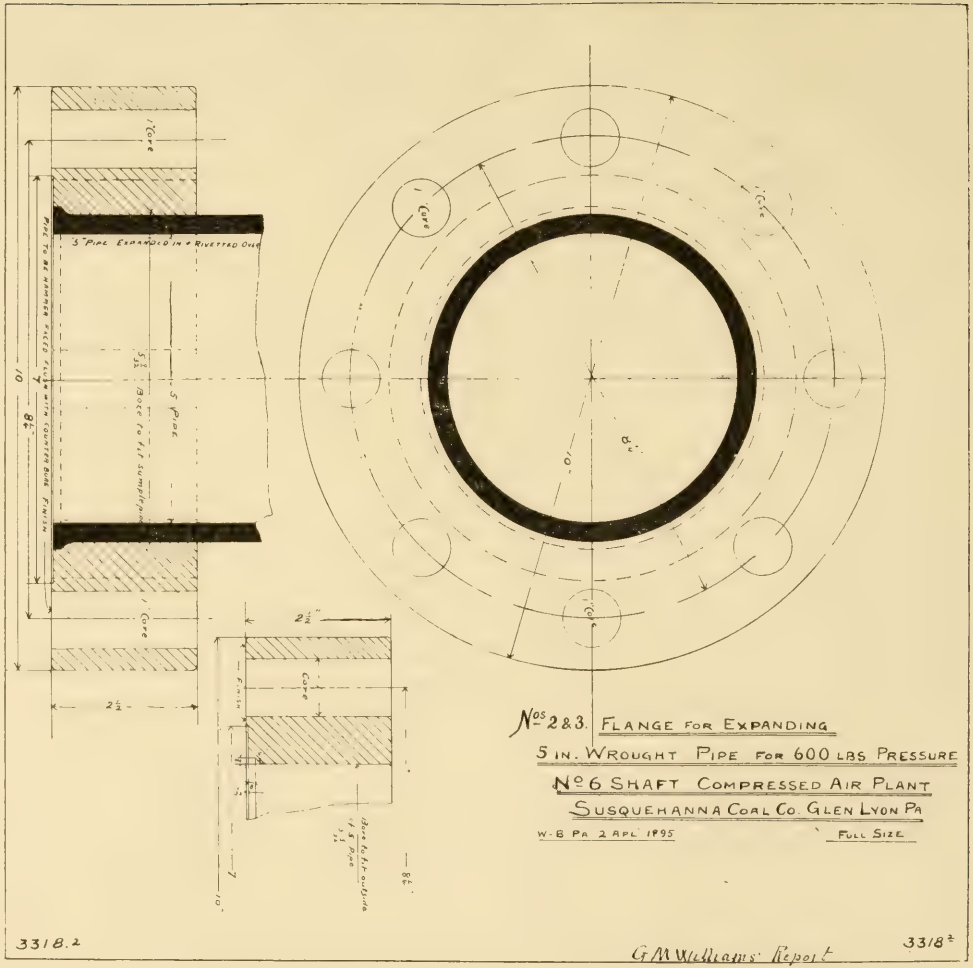
tanks by specially designed reducing valve, which can be regulated to any pressure at a moment's notice, and which when once set, maintains a constant fixed pressure in the auxiliary reservoir, thereby preventing any undue waste of air by injudicious handling, etc. In case only light loads are to be handled, the pressure can be materially reduced on auxiliary reservoir, thereby securing a decided gain in the economical use of the air; or on the other hand, in emergencies almost any pressure can be at a moment's notice utilized, and this without any undue heating or loss. In the auxiliary reservoir the air is controlled by a specially designed differential throttle, admitting the air to the cylinders.

The motor at present in use has a capacity for hauling a trip of 16 empty cars from the foot of the shaft 3,700 feet in to the gangway, and a trip of 16 loaded cars back to the foot of the shaft with one charge of air; starting with a pressure of 575 pounds in the reservoirs and ending with a little over 100 pounds remaining in them. The heavist work of course being in hauling in the empty trip up grade. The weight of each empty trip of 16 cars including the locomotive is about 60,000 pounds, and of the loaded trip including locomotive 166,000 pounds. The locomotive will make from 25 to 50 miles per day, depending upon the length of run and the time required for making up trips.

The cost of the operation of this plant has been found to vary from one to one and one-half cents per ton mile, including all expense, interest and depreciation of plant, varying with the character of the rolling stock used. The depreciation on the locomotive is very low, there being no boiler to wear out and the tanks having nothing to corrode them, should if kept well painted last an indefinite time. In this case the condition of the wheels owing to spragging was bad, there being many flat spots caused by sliding and the frictional resistance per ton on the track was excessive, but these cars are gradually being equipped with self-oiling wheels and brakes, similar to those in use at their Nanticoke collieries, which wheels give good lubrication and low frictional resistance, while the brakes, besides being much more easily handled than sprags, give absolute immunity from flat wheels. When this change, which was commenced only a few months before this haulage plant was put in operation, is completed, it is expected that the cost of haulage by this system will be still further reduced.

Compressed air haulage, of which this is the first example in the anthracite regions, has much to recommend it, being cheaper than wire rope haulage except perhaps under the most favorable conditions for the latter, and very much more flexible as the locomotive has a considerable radius of operation beyond the charging stations and can run anywhere on the track without previous preparation,


5" Line Coupling
Full Size
Special Socket used on 5" pipe for Ingersoll Compressor Plant No 6 Susq. Glen Lyon. Dimension Rule used for 60° cutter 3 3/4 & 5.



Nos 2 & 3. FLANGE FOR EXPANDING
5 IN. WROUGHT PIPE FOR 600 LBS PRESSURE
No 6 SHAFT COMPRESSED AIR PLANT
SUSQUEHANNA COAL CO. GLEN LYON PA
W-B PA 2 APL 1895 FULL SIZE

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provided only that there is sufficient room for it, and extensions of the pipe line are easily and cheaply made, and its absolute freedom from fire puts it beyond comparison with electric haulage or steam locomotives in gaseous mines, and indeed anywhere where avoidance of danger from fire is of importance.

The Susquehanna Coal Company intends very shortly to put another pneumatic locomotive in service in this colliery, using the present compressor, and the 5 inch pipe as a reservoir, and extending a 3 inch line about 4,000 feet with three charging stations to supply the new locomotive to work in a different section of the mine.

The foregoing is furnished at our request by the company's chief engineer, J. H. Bowden, who with their superintendent, Mr. G. T. Morgan, visited H. K. Porter and Company's Locomotive Works and one of the bituminous mines near Pittsburgh, in which a "Porter" compressed air motor was in use about a year ago, and with the assistance of Mr. E. P. Lord, superintendent for H. K. Porter & Co., designed and installed the above described plant.

TABLE 1.—*Showing location of collieries in the Fourth Anthracite District.*

Name of Colliery.	Name of Operator.	Location—Luzerne County.	Name of Superintendent.	Postoffice Address.
1. Hollenback No. 2,	Lehigh and Wilkes-Barre Coal Company,	Wilkes-Barre,	Elmer H. Lawall, general manager; William J. Richards, chief mining engineer; Morgan P. Morgans, inside superintendent; W. H. Herring, outside superintendent.	Wilkes-Barre.
2. Empire No. 4,	Lehigh and Wilkes-Barre Coal Company,	Wilkes-Barre,		
3. Stanton No. 17,	Lehigh and Wilkes-Barre Coal Company,	Wilkes-Barre,		
4. South Wilkes-Barre No. 3	Lehigh and Wilkes-Barre Coal Company,	Wilkes-Barre,		
5. South Wilkes-Barre No. 5	Lehigh and Wilkes-Barre Coal Company,	Wilkes-Barre,		
6. Jersey No. 8,	Lehigh and Wilkes-Barre Coal Company,	Ashley,		
7. Maxwell No. 20,	Lehigh and Wilkes-Barre Coal Company,	Ashley,		
8. Colliery No. 9,	Lehigh and Wilkes-Barre Coal Company,	Sugar Notch,		
9. Lance No. 11,	Lehigh and Wilkes-Barre Coal Company,	Plymouth,		
10. Nottingham No. 15,	Lehigh and Wilkes-Barre Coal Company,	Plymouth,		
11. Reynolds No. 16,	Lehigh and Wilkes-Barre Coal Company,	Plymouth,		
12. Wanamie Nos. 18 and 19	Lehigh and Wilkes-Barre Coal Company,	Wanamie,		
13. Baltimore shaft No. 2,	Delaware and Hudson Canal Company,	Wilkes-Barre,	A. H. Vandling, general superintendent; C. C. Rose, assistant superintendent; C. H. Scharar, mining engineer.	Scranton.
14. Baltimore shaft No. 3,	Delaware and Hudson Canal Company,	Wilkes-Barre,		
15. Baltimore tunnel,	Delaware and Hudson Canal Company,	Wilkes-Barre,		
16. Conyngham,	Delaware and Hudson Canal Company,	Wilkes-Barre,		
17. Boston,	Delaware and Hudson Canal Company,	Plymouth twp.,		
18. No. 2 Plymouth,	Delaware and Hudson Canal Company,	Plymouth twp.,		
19. No. 3 Plymouth,	Delaware and Hudson Canal Company,	Plymouth twp.,		
20. No. 4 Plymouth,	Delaware and Hudson Canal Company,	Plymouth twp.,		
21. No. 5 Plymouth,	Delaware and Hudson Canal Company,	Plymouth twp.,		
22. New No. 5 shaft,	Delaware and Hudson Canal Company,	Plymouth twp.,		
23. Colliery No. 3,	Susquehanna Coal Company,	West Nanticoke,	Irving A. Stearns, general manager; J. H. Bowden, chief mining engineer; George T. Morgan, general superintendent.	Wilkes-Barre and Nanticoke.
24. Colliery No. 5,	Susquehanna Coal Company,	Nanticoke,		
25. Colliery No. 6,	Susquehanna Coal Company,	Glen Lyon,		
26. Colliery No. 7,	Susquehanna Coal Company,	Nanticoke,		
27. Nos. 1 and 4 shafts,	Kingston Coal Company,	Edwardsdale,	Daniel Edwards, general superintendent.	Kingston.
28. Nos. 2 and 3 shafts,	Kingston Coal Company,	Edwardsdale,		
29. Gaylord,	Kingston Coal Company,	Plymouth,		
30. Avondale,	Dela., Lacka. and Western R. R. Co.,	Plymouth twp.,	W. R. Storrs, general coal agent; W. H. Storrs, asst. gen. coal agt.; A. H. Storrs, supt.; John F. Snyder, chief mining engineer; B. Hughes, general mine superintendent.	Scranton.
31. Woodward,	Dela., Lacka. and Western R. R. Co.,	Plymouth twp.,		
32. Bliss,	Dela., Lacka. and Western R. R. Co.,	Hanover twp.,		
33. Auchincloss,	Dela., Lacka. and Western R. R. Co.,	Hanover twp.,		
34. Dorrance,	Lehigh Valley Coal Company,	Wilkes-Barre,	W. A. Lathrop,	Wilkes-Barre.
35. Franklin,	Lehigh Valley Coal Company,	Wilkes-Barre,	W. A. Lathrop,	
36. No. 1 Red Ash,	Red Ash Coal Company,	Wilkes-Barre twp.,	M. B. Williams,	Wilkes-Barre.
37. No. 2 Red Ash,	Red Ash Coal Company,	Wilkes-Barre twp.,	M. B. Williams,	
38. Alden,	Alden Coal Company,	Alden,	K. M. Smith,	Alden Station.
39. Dodson,	Plymouth Coal Company,	Plymouth,	James B. Davies,	Plymouth.
40. Parrish,	Parrish Coal Company,	Plymouth,	H. H. Ashley,	Plymouth.

41. Buttonwood,	Parrish Coal Company,	Hanover township,	H. H. Ashley,	Plymouth.
42. West End,	West End Coal Company,	Mocanaqua,	John Conyngham,	Wilkes-Barre.
43. Lee,	Lee Coal Company,	Newport township,	Rees G. Brooks,	Lee, Luzerne county.
44. Maffet,		Sugar Notch		
45. Hillman vein,	Hill Vein Coal Company,	Wilkes-Barre,	S. J. Tonkin,	Wilkes-Barre.
46. Warrior Run,	A. J. Davis,	Warrior Run,	A. J. Davis,	Wilkes-Barre.
47. Chauncey,	The Reynolds and Moyer Coal Company,	Plymouth township,	C. H. Reynolds,	Kingston.
48. Kidder,	Kidder Coal Company,	Wilkes-Barre,	T. L. Wells,	Wilkes-Barre.
49. Wyoming washery,	Wyoming Coal Company,	Sugar Notch,	A. R. Anthony,	Sugar Notch.

TABLE No. 2.—*Gives the total number of tons of coal mined and tons of coal shipped in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, etc., in the Fourth Anthracite Mining District for the year ending December 31, 1895.*

Names of Collieries.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.
Lehigh and Wilkes-Barre Coal Company.											
1. Hollenback No. 2,	Wilkes-Barre,	161,269.95	126,373.20	129.40	550	4	5	4,290	39	62	.....
2. Empire No. 4,	Wilkes-Barre,	205,716.85	188,924.85	128.30	806	2	5	4,761	30	80	2
3. South Wilkes-Barre No. 5,	Wilkes-Barre,	391,467.35	325,908.85	161.50	869	2	8	6,515	18	71	1
4. Stanton No. 7,	Wilkes-Barre,	189,533.35	159,892.60	129.30	697	1	17	3,766	45	80	1
5. Jersey No. 8,	Ashley,	127,520.05	102,963.05	129.00	499	1	.....	3,108	32	51	1
6. Maxwell No. 20,	Ashley,	17,197.70	3,432.70	3.90		1	4	36	6		.....
7. Sugar Notch No. 9,	Sugar Notch,	163,957.30	149,953.05	128.40	635	1	3	6,153	25	63	1
8. Lance No. 11,	Plymouth,	223,147.15	208,132.15	132.55	748	.....	7	5,988	20	86	.....
9. Nottingham No. 15,	Plymouth,	433,997.00	391,042.00	147.25	1,060	2	12	8,954	36	117	2
10. Reynolds No. 16,	Plymouth,	152,938.25	144,625.25	129.20	529	1	.....	3,602	8	76	1
11. Wanamie Nos. 18 and 19,	Wanamie,	207,132.85	191,256.85	128.60	672	2	2	6,791	30	94	2
Totals,		2,273,877.80	1,992,504.55	*134.74	7,065	17	63	53,964	289	780	11
Delaware and Hudson Canal Company.											
12. Baltimore No. 2,	Wilkes-Barre,	111,672.30	103,459.80	169.00	310	.....	2	4,485	18	27	.....
13. Baltimore No. 3,	Wilkes-Barre,	132,377.15	120,879.15	221.75	433	2	1	4,043	23	63	.....
14. Baltimore tunnel,	Wilkes-Barre,	154,270.95	139,581.05	227.25	391	.....	4	4,721	24	55	2
15. Conyngham,	Wilkes-Barre,	30,851.30	16,762.35	37.75	349	.....	1	820	28	32	.....
16. Boston,	Plymouth township,	169,926.30	161,713.80	176.00	340	.....	.....	3,249	18	46	.....
17. Shaft No. 2,	Plymouth township,	220,086.00	211,873.50	200.75	399	3	6	5,346	18	66	.....

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18. Shaft No. 3,	Plymouth township,	78,898.80	73,807.65	73.50	459	.....	.....	2,823	21	67	.....
19. Shaft No. 4,	Plymouth township,	172,912.80	166,096.05	201.50	422	.....	.....	5,145	15	50	.....
20. Shaft No. 5,	Plymouth township,	178,912.05	160,086.55	192.75	371	2	.. .	5,358	21	65	1
Totals,		1,249,907.65	1,154,259.90	*166.69	3,474	7	14	35,990	186	471	3
Susquehanna Coal Company.											
21. Shaft No. 1, Breaker **No. 7,**	Nanticoke,	470,335.10		180.60	1,393	3	20		72	185	.....
22. Colliery **No. 3,**	West Nanticoke,	75,106.00		107.40	112	.....	1		12	15	1
23. Shaft No. 2, Breaker **No. 5,**	Nanticoke,	477,934.60	1,247,947.50	190.60	1,366	3	19	30,144	82	153	4
24. Slope No. 4, Breaker **No. 5,**	Nanticoke,			.....	.....	1	7		.....	.....	.....
25. Shaft No. 6, Breaker **No. 6,**	Glen Lyon,	.....	.....	.....	.....	2	9	.....	.....	.....	.....
26. Slope No. 6, Breaker **No. 6,**	Glen Lyon,	408,317.55		181.45	1,214	3	1		66	130	2
27. Tunnel No. 6, Breaker **No. 6,**	Glen Lyon,	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
Totals,		1,431,693.25	1,247,947.50	*165.01	4,085	12	58	30,144	232	483	7
Kingston Coal Company.											
28. Shaft No. 1, Breaker **No. 4,**	Edwardsdale,	288,882.25	259,682.25	188.65	895	1	4	8,006	64	103	.....
29. Shaft No. 4, Breaker **No. 4,**	Edwardsdale,					...	6				
30. Shaft No. 2, Breaker **No. 2,**	Edwardsdale,	370,695.90	337,460.15	204.20	1,009	2	2	10,089	43	112	3
31. Shaft No. 3, Breaker **No. 3,**	Edwardsdale,					....	3				
32. Gaylord shaft and slope,	Plymouth,	123,425.65	106,586.40	159.50	345	3	2	4,439	31	56	.....
Totals,		783,003.80	703,728.80	*184.11	2,249	6	17	22,534	138	271	3
Dela., Lacka. and Western Railroad Company.											
33. Avondale,	Plymouth township,	133,022.55	111,735.55	182.90	442	.....	3	3,815	42	65	1
34. Woodward Nos. 1 and 2,	Plymouth township,	406,817.70	381,745.20	191.00	1,175	3	12	10,582	44	117	2
35. Bliss,	Hanover township,	16,636.55	6,876.55	55.00	445	2	3	514	8	38	1
Totals,		556,476.80	500,357.30	*142.96	2,062	5	18	14,911	94	220	4
Lehigh Valley Coal Company.											
36. Dorrance,	Wilkes-Barre,	180,630.70	157,446.95	170.20	530	11	12	3,943	21	55	1
37. Franklin,	Wilkes-Barre,	182,033.75	166,470.75	183.35	650	3	9	5,212	36	52	1
Totals,		362,664.45	323,917.70	*176.77	1,180	14	21	9,155	57	107	2

† In the total production 642,872.40 tons is included as the estimated amount of fuel consumed to produce steam at the mines.
* Averages.

TABLE NO. 2.—*Continued.*

Names of Collieries.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.
Red Ash Coal Company.											
38. Red Ash Nos. 1 and 3,	Wilkes-Barre township,	106,758.85	99,880.10	122.15	327	2	1	2,596	15	20	1
39. Red Ash No. 2,	Wilkes-Barre township,	114,867.70	108,393.70	125.55	363	.....	.....	3,542	8	33	.....
Totals,		221,626.55	208,273.80	*123.85	690	2	1	6,138	23	53	1
Parrish Coal Company.											
40. Parrish,	Plymouth,	137,809.60	119,201.35	144.30	443	1	4	3,688	34	50	.....
41. Buttonwood,	Hanover township,	124,693.85	121,341.10	154.60	375	.....	1	3,597	4	32	.....
Totals,		262,503.45	240,542.45	*149.45	818	1	5	7,285	38	82	.....
Miscellaneous Coal Companies.											
42. Alden Coal Company,	Alden,	205,149.60	194,620.70	187.20	652	2	11	5,380	19	59	.....
43. Dodson, Plymouth Coal Company,	Plymouth,	177,604.25	155,717.25	178.80	451	.....	3	5,731	34	36	.....
44. Maffet, Hanover Coal Company,	Sugar Notch,	21,287.95	20,537.95	49.35	224	.....	.....	452	12	30	.....
45. West End Coal Company,	Mocanaqua,	235,789.00	214,273.00	218.55	582	2	3	5,357	24	68	2
46. Hillman Vein Coal Company,	Wilkes-Barre,	76,917.30	50,741.80	160.25	280	4	3	2,718	12	21	.....
47. Warrior Run, A. J. Davis,	Warrior Run,	72,782.05	56,248.05	110.20	349	1	.....	1,747	30	16	.....
48. Lee Coal Company,	Newport township,	1,496.95	737.95	12.50	140	.....	1	37	9	22	.....
49. Chauncey, the Reynolds and Moyer Coal Co.,	Plymouth township,	22,585.00	21,859.00	180.60	204	1	.....	1,300	2	10	.....

50. Reynolds washery, etc.,	Plymouth,	39,057.70	39,109.70	182.10	27	.....	.....	.....	2	.....	.....
51. Kidder Coal Company,	Wilkes-Barre,	35,622.50	35,622.50	179.35	22	.....	.....	.....	3	1	.....
52. Wyoming Coal Company,	Sugar Notch,	32,895.30	32,895.30	.....	18	.....	.....	.....	.....	.....	.....
Totals,		924,785.60	822,363.20	*162.10	2,949	10	21	22,722	147	263	2

Recapitulation.

Lehigh and Wilkes-Barre Coal Company,	2,273,877.80	1,992,504.55	*134.74	7,065	17	63	53,964	289	780	11
Delaware and Hudson Canal Company,	1,249,907.65	1,154,259.90	*166.69	3,474	7	14	35,990	186	471	3
Susquehanna Coal Company,	1,431,693.25	1,247,947.50	*165.01	4,085	12	58	30,144	232	483	7
Kingston Coal Company,	783,003.80	703,728.80	*184.11	2,249	6	17	22,534	138	271	3
Delaware, Lackawanna and Western Railroad Company,	556,476.80	500,357.30	*142.96	2,062	5	18	14,911	94	220	4
Lehigh Valley Coal Company,	362,664.45	323,917.70	*176.77	1,180	14	21	9,155	57	107	2
Red Ash Coal Company,	221,626.55	208,273.80	*123.85	690	2	1	6,138	23	53	1
Parrish Coal Company,	262,503.45	240,542.45	*149.45	818	1	5	7,285	38	82	.....
Miscellaneous coal companies,	924,785.70	822,363.20	*156.18	2,949	10	21	22,722	147	263	2
Grand total, all coal companies,	8,066,539.35	7,193,895.20	162.10	24,572	74	218	202,843	1,204	2,730	33

* Averages.

† In the total production 642,872.40 tons is included as the estimated amount of fuel consumed to produce steam at the mines.

Three persons were injured at the Auchincloss new shafts which were not producing coal and who are not included in the above table, adding which would make a total of 221 injured. There were 97 persons employed at said shafts also who are not included in these tables, making the total number employed 24,669 persons.

TABLE No. 3.—*Showing the number of each class of employes at each colliery in the Fourth Anthracite District during the year 1895.*

Names of Collieries.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							
	Inside foremen.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Door boys and helpers.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All other company men.	Superintendents, bookkeepers and clerks.	Total outside.	Grand total, inside and outside.
Lehigh and Wilkes-Barre Coal Company.															
1. Hollenback No. 2,	1	152	49	53	38	28	321	1	5	19	120	83	1	229	550
2. Empire No. 4,	1	170	170	77	98	20	536	1	3	17	165	83	1	270	806
3. South Wilkes-Barre No. 5,	1	170	216	120	48	49	604	1	8	19	135	98	4	265	869
4. Stanton No. 7,	1	159	110	45	62	27	404	1	4	25	190	70	3	293	697
5. Jersey No. 8,	1	108	94	41	15	22	281	1	7	17	155	35	3	218	499
6. Maxwell No. 20,															
7. Sugar Notch No. 9,	1	166	100	88	42	38	435	1	7	15	116	60	1	200	635
8. Lance No. 11,	1	140	140	96	100	43	520	1	7	18	145	55	2	228	748
9. Nottingham No. 15,	1	260	175	99	92	24	651	1	8	29	280	89	2	409	1,060
10. Reynolds No. 16,	1	116	89	52	50	23	331	1	4	10	135	47	1	198	529
11. Wanamie Nos. 18 and 19,	1	176	160	36	54	28	455	1	6	22	110	77	1	217	672
Totals,	10	1,617	1,303	707	599	302	4,538	10	59	191	1,551	697	19	2,527	7,065
Delaware and Hudson Canal Company.															
12. Baltimore No. 2,	1	52	68	31	25	4	181	1	3	9	85	30	1	129	310
13. Baltimore No. 3,	1	85	85	34	51	8	264	1	6	12	100	49	1	169	433
14. Baltimore tunnel,	1	68	60	37	48	12	226	1	6	18	87	50	3	165	391
15. Conyngham,	1	62	62	29	34	14	202	1	5	16	84	40	1	147	349
16. Boston,	1	70	70	37	25	9	212	1	5	14	63	44	1	128	340
17. Shaft No. 2, Plymouth,	1	75	104	36	42	6	264	1	5	15	68	44	2	135	399
18. Shaft No. 3, Plymouth,	1	105	111	52	53	25	347	1	4	16	56	34	1	112	459

19. Shaft No. 4, Plymouth,	1	100	100	43	53	14	311	1	6	10	57	35	2	111	422
20. Shaft No. 5, Plymouth,	1	89	89	56	33	9	277	1	5	9	37	40	2	94	371
Totals,	9	706	749	355	364	101	2,284	9	45	119	637	366	14	1,190	3,474
Susquehanna Coal Company.															
21. Shaft No. 1, Breaker No. 7,	2	287	445	157	134	74	1,099	1	9	32	139	111	2	294	1,393
22. Colliery No. 3,	1	13	32	2	6	.....	54	1	2	3	28	24	.....	58	112
23. Shaft No. 2, Breaker No. 5,	2	283	420	139	134	66	1,044	1	36	29	124	130	2	322	1,366
24. Slope No. 4, Breaker No. 5,															
25. Shaft No. 6, Breaker No. 6,															
26. Slope No. 6, Breaker No. 6,	3	302	340	158	133	36	972	1	9	20	104	107	1	242	1,214
27. Tunnel No. 6, Breaker No. 6,															
Totals,	8	885	1,237	456	407	176	3,169	4	56	84	395	372	5	916	4,085
Kingston Coal Company.															
28. Shaft No. 1, Breaker No. 4,	2	85	60	42	42	19	250	.....	.....	.....	.....	.....	.....	.....	250
29. Shaft No. 4, Breaker No. 4,	2	140	100	32	41	23	338	2	16	25	188	73	3	307	645
30. Shaft No. 2, Breaker No. 2,	2	248	212	77	91	53	683	1	13	16	175	118	3	326	1,009
31. Shaft No. 3, Breaker No. 3,															
32. Gaylord,	1	86	60	28	37	11	223	1	3	7	71	39	1	122	345
Totals,	7	559	432	179	211	106	1,494	4	32	48	434	230	7	755	2,249
Dela., Lacka. and Western Railroad Company.															
33. Avondale,	2	101	101	61	36	7	308	1	24	7	63	38	1	134	442
34. Woodward,	3	294	323	88	119	75	902	2	7	21	132	111	.....	273	1,175
35. Bliss,	1	40	65	77	10	2	195	2	30	12	99	105	2	250	445
Totals,	6	435	489	226	165	84	1,405	5	61	40	294	254	3	657	2,062
Lehigh Valley Coal Company.															
36. Dorrance,	2	100	116	56	65	12	351	1	12	17	87	58	4	179	530
37. Franklin,	1	133	130	39	62	19	384	1	10	20	154	78	3	266	650
Totals,	3	233	246	95	127	31	735	2	22	37	241	136	7	445	1,180
Red Ash Coal Company.															
38. Red Ash No. 1,	1	83	83	16	28	9	220	1	4	6	48	46	2	107	327
39. Red Ash No. 2,	1	89	87	16	32	9	234	1	5	4	63	54	2	129	363
Totals,	2	172	170	32	60	18	454	2	9	10	111	100	4	236	690

TABLE No. 3.—*Continued.*

Names of Collieries.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							
	Inside foremen.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Door boys and helpers.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All other company men.	Superintendents, bookkeepers and clerks.	Total outside.	Grand total, inside and outside.
Parrish Coal Company.															
40. Parrish,	2	74	75	69	26	20	266	1	7	26	89	51	3	177	443
41. Buttonwood,	1	79	85	45	24	16	250	1	4	10	65	43	2	125	375
Totals,	3	153	160	114	50	36	516	2	11	36	154	94	5	302	818
Miscellaneous Coal Companies.															
42. Alden Coal Company,	1	137	137	57	50	22	404	1	10	15	156	60	6	248	652
43. Dodson, Plymouth Coal Company,	1	75	90	80	50	20	316	1	5	10	80	36	3	135	451
44. Maffet,	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
45. West End Coal Company,	3	132	177	13	44	8	377	1	7	18	111	64	4	205	582
46. Hillman Vein Coal Company,	1	64	65	26	13	19	188	1	2	7	49	30	3	92	280
47. Warrior Run, A. J. Davis,	1	90	71	29	21	18	230	1	4	10	80	22	2	119	349
48. Lee Coal Company,	1	18	20	14	6	.....	59	1	4	6	38	30	2	81	140
49. Chauncey, the Reynolds and Moyer Coal Co.,	1	33	70	19	11	2	136	1	2	2	32	30	1	68	204
50. Reynolds washery,	.....	.....	.....	.....	.....	.....	.....	1	.....	1	12	13	.....	27	27
51. Kidder Coal Company,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18	.....	18	18
52. Wyoming Coal Company,	.....	.....	.....	.....	.....	.....	.....	1	.....	3	2	14	2	22	22
Totals,	9	549	630	228	195	89	1,719	9	34	72	560	317	23	1,015	2,725

Recapitulation.

Lehigh and Wilkes-Barre Coal Company,	10	1,617	1,303	707	599	302	4,538	10	59	191	1,551	697	19	2,527	7,065
Delaware and Hudson Canal Company.	9	706	749	355	364	101	2,284	9	45	119	637	366	14	1,190	3,474
Susquehanna Coal Company,	8	885	1,237	456	407	176	3,169	4	56	84	395	372	5	916	4,085
Kingston Coal Company,	7	559	432	179	211	106	1,494	4	32	48	434	230	7	755	2,249
Dela., Lacka. and Western Railroad Company,	6	435	489	226	165	84	1,405	5	61	40	294	254	3	657	2,062
Lehigh Valley Coal Company,	3	233	246	95	127	31	735	2	22	37	241	136	7	445	1,180
Red Ash Coal Company,	2	172	170	32	60	18	454	2	9	10	111	100	4	236	690
Parrish Coal Company,	3	153	160	114	50	36	516	2	11	36	154	94	5	302	818
Miscellaneous Coal Companies,	9	349	630	238	195	89	1,710	9	34	72	560	317	23	1,015	2,725
Totals,	57	5,309	5,416	2,402	2,178	943	16,305	47	329	637	4,377	2,566	87	8,043	24,348

* Did not work after May. Employes working at other mines.
There were 97 persons employed in new shafts not included in the above table, making the total number employed 24,669.

TABLE No. 4.—*List of fatal accideuts that occurred in and about the Mines of the Fourth Anthracite Mine District for the year ending December 31, 1895.*

Date of Accident.	Number of Accident.	Name of Person.	Occupation.	Age.	Widows.	Number of orphans.	Name of Colliery.	Location—Luzerne County.	Nature and Cause of Accident.
Jan. 5,	1	Frank Carminski,	Laborer,	28	1	2	West End,	Mocanaqua,	Killed by a piece of rock falling from roof on side of gangway.
7,	2	David J. Thomas,	Driver,	18	....	....	Shaft No. 2,	Edwardsdale,	Fell under a car at head of plane and was fatally hurt; died same night.
11,	3	Emrys Jones,	Driver's helper,	16	....	....	Hollenback,	Wilkes-Barre,	Kicked by a mule when following him up a manway; died next day.
25,	4	George Norkanas,	Laborer,	26	....	....	Slope No. 6,	Glen Lyon,	Killed by a fall of top bone-coal while helping the miner to lay a piece of track in the breast.
29,	5	John Sitka,	Miner,	40	1	4	Slope No. 4,	Nanticoke,	Fatally hurt by a fall of top bone-coal; died same evening. His laborer was slightly injured.
Feb. 1,	6	James Gunning,	Miner,	44	1	1	Ross slope, Bliss,	Hanover,	While riding up the slope on front end of car he attempted to step off into a cross-cut, fell down to the bottom, a distance of 60 feet on a pitch of 70 degrees; died the next day.
2,	7	Frank Peters,	Miner,	45	1	6	Shaft No. 2,	Nanticoke,	While working at face of breast immediately after putting up a set of timber, a piece of rock fell on him and injured him so that death ensued the next day.
4,	8	Anthony Gleco,	Co. laborer,	40	1	5	Slope No. 18,	Wanamie,	Instantly killed; while unloading a carload of rock into an old breast below, track gave way and with the car went down, a distance of 40 feet on a pitch of 48 degrees.
8,	9	George Ghent,	Miner,	52	1	5	Hollenback,	Wilkes-Barre,	Fatally injured by a fall of bone-coal in a cross-cut; died at the hospital, Feb. 11.
13,	10	Jabez Rees,	Miner,	34	1	3	Baltimore No. 3,	Wilkes-Barre twp.,	On returning after firing blast a large mass of coal fell and killed him.
26,	11	Frank Miller,	Miner,	30	1	1	Hillman vein,	Wilkes-Barre,	Killed by a fall of fire-clay roof in the Kidney seam.

Mar.	1,	12	John Laraunika,	Laborer,	24	....	....	Gaylord,	Plymouth,	Killed by a fall of rock roof in Five Foot seam; the miner was injured at the same time.
	14,	13	Martin Burke,	Door-tender,	50	1	....	Woodward,	Plymouth twp.,	Fatally injured by runaway cars on the inside slope; died same night.
	16,	14	John Fudge,	Door-tender,	16	....	....	West End,	Mocanaqua,	Instantly killed by a fall of roof near a door on inside slope.
	23,	15	Michael Smith,	Miner,	27	....	....	Jersey No. 8,	Ashley,	Supposed to have been struck on abdomen by a drill when prying coal down; died the same day.
April	1,	16	William Bevan,	Driver's helper,	15	....	....	Franklin,	Wilkes-Barre,	Killed by being crushed between a loaded car and rib in the Five Foot seam.
	4,	17	Adam Veroski,	Laborer,	24	....	....	Dorrance,	Wilkes-Barre,	Fatally injured; coupling broke and car ran back upon him near bottom of the slope; died April 7, at hospital.
	4,	18	Cornelius Dwyer,	Miner,	49	1	7	Gaylord,	Plymouth,	Fatally injured by a fall of rock from roof at the face of a breast; died April 6.
	10,	19	John Griffiths,	Driver,	20	....	....	Franklin,	Wilkes-Barre,	Instantly killed; was trying to sprag a running car; the rear end of car swung off the track and crushed him; the opposite front wheel struck the block and caused the rear end to swing over.
	17,	20	Constant Roshinski,	Miner,	25	....	....	Franklin,	Wilkes-Barre,	Killed by a blast; he had barely moved after firing the match when the blast exploded.
	17,	21	Mason C. Moore,	Carpenter,	57	1	....	South No. 1 shaft,	Nanticoke,	Severely burned by an explosion of gas at the bottom of an 8-inch bore hole, which had been sunk from the surface; died April 19.
May	8,	22	Joe Mickrod,	Laborer,	26	....	....	Wanamie No. 18,	Wanamie,	Fatally injured by a fall of rock at head of chute in a breast; died on his way out of the mine.
	8,	23	John C. Davies,	Miner,	53	1	9	Hollenback,	Wilkes-Barre,	Killed by a premature blast which exploded when he was lighting the match.
	18,	24	John Lewicki,	Laborer,	40	1	6	Shaft No. 2,	Plymouth,	Fatally injured by walking into the road in front of a running car; died on his way home.
	21,	25	George O. Donnell,	Miner,	45	....	....	Empire,	Wilkes-Barre,	Fatally hurt by a fall of coal; died a few hours after.
	24,	26	James Mulhall,	Shaft sinker,	40	1	3	Maxwell No. 20,	Ashley,	Fell from the bucket when ascending the shaft and was killed; fell 40 feet.
	24,	27	George Schaeffer,	Laborer,	50	1	....	Slope No. 6,	Glen Lyon,	Instantly killed by a fall of coal; an unseen slip caused it to fall unexpectedly.
June	6,	28	John Koval,	Laborer,	19	....	....	Red Ash No. 1,	Wilkes-Barre twp.,	Instantly killed by a fall of rock when shoveling coal into the chute in a breast.
	10,	29,	Joseph Smith,	Miner,	29	1	1	Shaft No. 9,	Sugar Notch,	Fatally burned by an explosion of powder; died June 11.

TABLE NO. 4.—*Continued.*

Date of Accident.	Number of Accident.	Name of Person.	Occupation.	Age.	Widows.	Number of orphans.	Name of Colliery.	Location—Luzerne County.	Nature and Cause of Accident.
June 11,	30	Hugh Jones,	Mine foreman,	35	1	1	Hillman vein,	Wilkes-Barre,	Fatally injured by being crushed between cage and bunton in the shaft; through a misunderstanding the cage was lowered while he was examining the guides at the bottom of the shaft; he died at 2.30 P. M., June 12.
12,	31	Anthony Boberick,	Miner,	37	1	....	Shaft No. 6,	Glen Lyon,	Instantly killed by a fall of top rock in a breast on Ross seam, bottom split.
14,	32	Thomas Bryan,	Miner,	36	1	5	Alden,	Alden,	Both were instantly killed by a large fall of top coal; they had just gone to work at enlarging an airway, when a mass of top coal 35 feet long and 3 feet thick feel on them.
14,	33	William Rumka,	Laborer,	35	1	4			
14,	34	Joseph Zelipka,	Miner,	35	1	2	Slope No. 6,	Glen Lyon,	Killed by a fall of a pan-shaped piece of rock, which was imbedded in a sandrock roof.
24,	35	Anthony Rowley,	Laborer,	26	....	....	Shaft No. 5,	S. Wilkes-Barre,	Instantly killed by a fall of bony coal at face of breast.
24,	36	Thomas Leshinski,	Laborer,	22	....	....	Shaft No. 2,	Nanticoke,	Killed by a fall of top rock in a breast in the Red Ash seam.
28,	37	Robert Richards,	Miner,	35	1	7	Woodward,	Plymouth twp.,	Killed; crushed between a trip of cars and face of breast; cars moved on and pinned him and his laborer Marian Patroski, against the face of dip gangway.
July 6,	38	Peter Lore,	Carpenter,	50	1	2	Shaft No. 6,	Glen Lyon,	Fatally burned by an explosion of gas; died July 11; six other persons were more or less burned by the same explosion.
18,	39	Stanley Gregolin,	Miner,	44	...	....	Woodward,	Plymouth twp.,	Fatally injured by a fall of rock under which he was mining; died on reaching the hospital.
26,	40	John Sherman,	Laborer,	21	....	....	Dorrance,	Wilkes-Barre,	Fatally injured by a fall of coal at the face of a breast; died on July 27.

	29,	41	David O. Richards,	Door-tender,	60	1	....	Parrish,	Plymouth,	Killed by a trip of loaded cars run in over him at his door.
	31,	42	James O. Connell,	Driver,	17	....	....	Shaft No. 5,	Plymouth,	Killed by slipping and falling under cars while unhitching his mule.
Aug.	12,	43	Frank Smith,	Miner,	35	1	1	Nottingham,	Plymouth,	Kicked on his abdomen by a mule; died from its effects August 13.
	16,	44	Isaac Thomas,	Miner,	57	1	3	Empire,	Wilkes-Barre,	Fatally injured by a fall of rock, which fell from beneath the top coal; died same night.
	23,	45	James Murphy,	Miner,	31	....	....	Shaft No. 2,	Plymouth,	The miner was fatally injured and the laborer was killed by a fall of rock from the top at a point about 30 feet from the face; they were repairing the track; Murphy died August 26.
	23,	46	Stanislaw Stakinewicz,	Laborer,	19	....	....			
	27,	47	Anthony Jennish,	Miner,	31	1	1	Shaft No. 1,	Edwardsdale,	Killed by an explosion of dynamite; while heating it over his lamp in a can.
	30,	48	William D. Edwards,	Machinist,	32	....	....	Gaylord breaker,	Plymouth,	Fatally injured by falling from an old trestle 30 feet high; died same night.
Sept.	25,	49	Charles Milesky,	Laborer,	24	1	....	Nottingham,	Plymouth,	When riding on a car he was caught between it and a door; he was out the next day, but died on the 27th.
Oct.	1,	50	John Taballaugh,	Slate picker,	16	....	....	Baltimore breaker No. 3,	Wilkes-Barre twp.,	Instantly killed by climbing over a fence and falling upon a screen while playing "tag."
	7,	52	Edward Davis,	Miner,	58	1	....	Dorrance,	Wilkes-Barre,	Fataly injured by a blast which exploded while he was igniting the match; died same afternoon.
	7,	53	Daniel J. Davies,	Fire boss,	35	1	2	Dorrance,	Wilkes-Barre,	The first four named were instantly killed and the other three were fatally injured: Morris died same night; Miller died October 10 and Blanchard October 19. The cause of the disaster was an explosion of fire-damp. The first four named went into an old breast, intending to measure a cross-heading, and while they were there a terriffic explosion of gas took place. It was evident after the explosion that they fired the gas, and that the fire boss was carrying his naked lamp as his safety lamp was hooked on his belt when his body was recovered. They evidently walked into the gas, thinking the place was safe without first making an examination with the safety lamp.
	7,	54	William Jones,	Min. engineer,	23	....	....			
	7,	55	William P. Cahill,	Min. engineer,	20	....	....			
	7,	56	Llewelyn Owens,	Min. engineer,	21	....	....			
	7,	57	Michael Morris,	Miner,	38	1	....			
	7,	58	Robert Miller,	Min. engineer,	19	....	....			
	7,	59	Robert Blanchard,	Min. engineer,	19	....	....			
	8,	51	Sobek Dubiel,	Laborer,	38	1	2	Reynolds No. 16,	Plymouth,	Killed by a large lump of coal falling upon him from the top of a high mass of loose coal.

TABLE NO. 4.—*Continued.*

Date of Accident.	No. of Accident.	Name of Person.	Occupation.	Age.	Widow.	No. of orphans.	Name of Colliery.	Location—Luzerne County.	Nature and Cause of Accident.
Oct. 17,	60	James A. Quinn, ...	Shaft sinker, ..	20	....	....	Bliss, ...	Hanover twp., ...	Was standing on a plank in the shaft, making room for a guide. The rope descended, having a heavy block of wood for a balance weight, which caught the plank and broke it, causing Quinn to fall to the bottom, a depth of 400 feet. He was told to move the plank back and the other men had done so with the planks upon which they were standing.
31,	61	Samuel Stoeck, ...	Laborer, ...	26	1	....	Hillman vein, ...	Wilkes-Barre, ...	Fataly burned by an explosion of gas; died November 3. The gas accumulated at the face of the breast while a door was open. James Bennis, the miner, was burned at the same time.
Nov. 1,	62	David J. Jones, ...	Asst. foreman,..	39	1	4	No. 1 Red Ash, ...	Wilkes-Barre twp.,	Instantly killed; he and the mine foreman went to examine the track rail after a trip of three cars was started up the slope. The hitching plate broke, leaving two cars back to the empty track, and they turned on their side upon the two men. The foreman was covered under the debris, but he escaped with slight bruises.
2,	63	Peter Judge, ...	Laborer, ...	45	....	....	Dorrance, ...	Wilkes-Barre, ...	Fatally suffocated by smoke during a fire in the underground barn. He fell on the plane and no one knew where he was until next morning, when he was found unconscious. He died at the hospital, November 4.
7,	64	Joseph Litman, ...	Laborer, ...	40	....	....	Shaft No. 2, ...	Edwardsdale, ...	Killed by a fall of rock. The miner escaped uninjured.

	21,	65	Joseph Vilko, ...	Laborer, ...	21	.... ..	Warrior Run, ...	Warrior Run, ...	Fatally injured by a fall of coal; he and his miner were loading coal into the chute from coal that was found loose along the rib some distance back from the face of the breast, when a large piece of coal fell out on the laborer. He died soon after being taken home.
Dec.	4,	66	Patrick McLaughlin, ..	Slate picker,....	16	....	Stanton breaker, ...	Wilkes-Barre, ...	Fatally injured; caught in a pair of rolls; got in just when the cover was off; died in about one hour after.
	13,	67	Peter Hudock, ...	Laborer, ...	35	1	Shaft No. 5, ...	Plymouth, ...	Pulley hook broke, leaving the car run back upon him. Injured so that death ensued December 15.
	14,	68	Michael Golinsky, ...	Laborer, ...	27	....	Chauncey, ...	Plymouth twp., ...	Fatally injured at face of breast by a fall of bone roof; died three hours after.
	17,	69	Frank Wanat, ...	Miner, ...	24	....	Hillman vein, ...	Wilkes-Barre, ...	When prying a piece of fire clay down, it rolled over and killed him.
	17,	70	John Lynch, ...	Door-tender, ...	14	....	Hollenback, ...	Wilkes-Barre, ...	While waiting to block an empty car which was being pulled up by a chain and pulley, the car jumped the track and crushed him against the gob wall; he died same evening.
	23,	71	Valentine Adamskie, ...	Miner, ...	48	1 6	South No. 1 shaft, ...	Nanticoke, ...	Fatally injured by a fall of top bone; died in half hour after.
	23,	72	Frank Talvert, ...	Oiler, ...	21	....	Breaker No. 5, ...	Nanticoke, ...	While oiling a bearing from a wrong position his clothing was twisted around a revolving shaft and he was drawn in and fatally injured; died one hour after.
	24,	73	George McGunness, ...	Miner, ...	35	1 4	South No. 1 shaft, ...	Nanticoke, ...	Fatally injured by a fall of rock; died December 27.
	28,	74	Frank Schultz, ...	Laborer, ...	35	1	Shaft No. 5, ...	S. Wilkes-Barre, ..	Fatally injured by a large fall of coal bursting from the rib of breast; died the same day.

Recapitulation of Fatal Accidents.

Occupation	Number.	Nationality.	Number.	Causes of Accidents.	Number.
Miners,	25	American,	13	By explosions of fire-damp,	10
Laborers,	22	Welsh,	14	By falls of roof and coal	33
Drivers and runners,	5	Irish,	9	By falling down shafts and slopes,	2
Door-tenders,	4	Polish,	28	By mine cars, underground,	13
Mining engineers,	6	German,	1	By explosions of powder and blasts,	5
Mine foremen,	2	Hungarian,	4	By miscellaneous causes underground,	7
Slope and shaft sinkers,	3	English,	2	By miscellaneous causes on surface,	1
Company men, inside,	3	Lithuanians,	2		
Slate pickers,	2	Italian,	1	Total,	74
Outside laborers, etc.,	2				
		Total,	74		
Total,	74				

Table No. 5.—*List of non-fatal accidents that occurred in and about the mines of the Fourth Anthracite Mine District for the year ending December 31, 1895.*

Date of Accident.	No. of Accident.	Name of Person.	Occupation.	Age.	Married.	Number of Children.	Name of Colliery.	Location—Luzerne County.	Nature and Cause of Accident.
Jan. 2,	1	Daniel Huron,	Driver,	16	S.	....	Nottingham,	Plymouth,	Severely cut on head and leg by falling under cars.
5,	2	Adolph Gaist,	Laborer,	21	M.	1	Breaker No. 5,	Nanticoke,	Arm broken; fell from a scaffold six feet high.
7,	3	Owen Flynn,	Miner,	50	M.	5	Stanton,	Wilkes-Barre,	Both more or less burned by an explosion of powder; they, in some careless manner, fired a cartridge which was full of powder.
7,	4	Anthony Kehoe,	Miner,	40	M.	2			
8,	5	Lewis Evans,	Laborer,	23	S.	....	Parrish,	Plymouth,	Face and arm burned by gas, which ignited in a pile of loose coal on floor.
8,	6	Steven Cromley,	Laborer,	30	S.	....	West End,	Mocanaqua,	Painfully injured by a fall of rock in an abandoned breast.
8,	7	Mike Hosky,	Miner,	35	M.	....	Shaft No. 1,	Edwardsdale,	Leg fractured; he was barring coal down and it struck him.
10,	8	Mike Elko,	Headman,	32	M.	1	Shaft No. 2 breaker,	Plymouth,	Painfully injured; was crushed between a car and head-house door.
10,	9	Mike Bellar,	Miner,	34	M.	5	Stanton,	Wilkes-Barre,	Injured about the hips by a fall of coal.
14,	10	Charles Smith,	Miner,	23	S.	....	Hollenback,	Wilkes-Barre,	Hand severely bruised by being caught in chain while the mule was pulling a car on to face.
17,	11	John Burack,	Laborer,	24	S.	....	Franklin,	Wilkes-Barre,	Back, face and hands painfully injured by a fall of coal.
23,	12	James D. Rees,	Miner,	47	M.	5	Dorrance,	Wilkes-Barre,	Both slightly burned by an explosion of gas in a heading; the gas accumulated while they were at work.
23,	13	Stephen Peters,	Laborer,	31	M.	1			
29,	14	Joseph Stashofski,	Laborer,	28	M.	2	Slope No. 4,	Nanticoke,	Slightly injured by a fall of bony coal. John Silka was fatally injured by the same fall.
Feb. 5,	15	Patrick McIntyre,	Shaft laborer,	37	M.	5	Maxwell,	Ashley,	Ankle bruised; struck by a piece of timber flying from a falling cross-head.
6,	16	George Balliet,	Footman,	21	S.	....	Nottingham,	Plymouth,	Shoulder fractured between two cars while coupling them.

TABLE No. 5.—*Continued.*

Date of Accident.	No. of Accident.	Name of Person.	Occupation.	Age.	Married.	Number of Children.	Name of Colliery.	Location—Luzerne County.	Nature and Cause of Accident.
Feb. 6,	17	Edward E. Thomas,	Driver,	30	M.	3	Stanton,	Wilkes-Barre,	Face badly bruised by a kick from a mule.
7,	18	Frank Eick,	Barn boss,	43	M.	4	Dorrance,	Wilkes-Barre,	Two scalp wounds; his head caught between a car and spring-roll.
7,	19,	Frank Saradoski,	Laborer,	23	S.		Slope No. 18,	Wanamie,	Painfully injured by being caught between a car and roof.
8,	20	John Rudish,	Laborer,	32	M.		Hollenback,	Wilkes-Barre,	Severely injured by a fall of bone coal. His miner was fatally injured at the same time.
8,	21	Lewis Morgan,	Miner,	22	M.	1	Shaft No. 4,	Edwardsdale,	Spine fractured by a fall of coal from rib.
9,	22	Patrick G. Casey,	Runner,	21	S.		Shaft No. 2,	Plymouth,	Ankle severely injured; jammed between cars.
9,	23	John Mashel,	Laborer,	40	M.	2	Slope No. 4,	Nanticoke,	Seriously injured about chest and ribs by a fall of bone roof.
9,	24	David Mackee,	Breaker eng'r,	56	M.	8	Woodward breaker,	Plymouth twp.,	Little finger severed by being caught between belt and pulley.
15,	25	Trevor Jones,	Miner,	45	M.	5	Hollenback,	Wilkes-Barre,	Skull fractured by a premature blast.
18,	26	Peter Curley,	Miner,	40	M.	7	Baltimore tunnel,	Wilkes-Barre,	Burned; a spark from his lamp ignited a charge of powder in his hands.
20,	27	Owen J. Parry,	Driver,	16	S.		South shaft No. 1,	Nanticoke,	Toes badly crushed under a car; slipped while getting off the car.
20,	28	Mike Malosky,	Miner,	35	S.		Shaft No. 4,	Edwardsdale,	Face burned by an explosion of powder; a charge exploded in the hole.
21,	29	John Andruskie,	Laborer,	40	M.	7	Stanton,	Wilkes-Barre,	Face, hands and part of back burned by gas ignited in crevices behind loose coal.
23,	30	Charles Carkeck,	Miner,	30	S.		South shaft No. 1,	Nanticoke,	Face and hands severely injured; a blast in rock exploded while he was withdrawing the tamping.
23,	31	John D. Cummings,	Shaftman,	33	M.	4	North shaft No. 1,	Nanticoke,	Small bone of leg fractured; back painfully sprained; the cage caught in the ice and then slipped, and was stopped suddenly by the safety catches, and the jar caused the injury to the men.
23,	32	William Samuels,	Shaftman,	27	S.				

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	27,	33	Ivor J. Walters,	Fire boss,	36	M.	5	North shaft No. 1,	Nanticoke,	Slid down an icy air-shaft on a rope and fell 30 feet to the bottom; was severely injured.
	27,	34	Domnick Kreyniski,	Miner,	30	S.		Hillman vein,	Wilkes-Barre,	Slightly burned by an explosion of gas.
	28,	35	Frank Werry,	Miner,	36	M	2	Dorrance,	Wilkes-Barre,	Face and hands burned by an explosion of gas; refused to heed when told of danger.
Mar.	1,	36	Charles Robinson, Jr.,	Laborer,	18	S.		Gaylord,	Plymouth,	Foot severely injured by a fall of rock. John Laraunika was killed by the same fall.
	1,	37	David T. Davies,	Miner,	35	M.	2	Nottingham,	Plymouth,	Both burned on face and hands by an explosion of gas; they brushed the gas upon their lamps in trying to remove it.
	1,	38	Mike Sebanis,	Laborer,	30	S.				
	2,	39	Taliesin Davies,	Slate picker,	13	S.		Gaylord breaker,	Plymouth,	Shoulder dislocated and arm broken; slid down a chute and fell.
	6,	40	Oliver Hanson,	Chute tender,	14	S.		Breaker No. 2,	Edwardsdale,	Arm broken; went where he had no business and was struck by a belt.
	7,	41	William Crabb,	Miner,	24	S.		Lance No. 11,	Plymouth,	Face and hands burned by an explosion of gas in an old breast.
	7,	42	Christ. Brace,	Miner,	47	M.	4	Shaft No. 4,	Edwardsdale,	Leg broken by being struck by lever when lifting a car to the track.
	8,	43	Anthony Smith,	Laborer,	29	M.	2	West End,	Mocanaqua,	Leg broken by coal rolling from the top of bottom bench.
	8,	44	Anthony Roshinsky,	Miner,	26	S.		West End,	Mocanaqua,	Back injured by a fall of top coal.
	12,	45	Morgan Hughes,	Driver,	17	S.		Shaft No. 3,	Edwardsdale,	Leg fractured and cut on head; caused by plane rope striking him.
	15,	46	John T. Williams,	Driver's helper,	16	S.		Stanton,	Wilkes-Barre,	Leg fractured; car jumped the track and ran against him.
	16,	47	Anthony Budizcika,	Laborer,	28	S.		Dodson,	Plymouth,	Face and hands slightly burned by an explosion of gas.
	17,	48	Chester Cragle,	Motorman,	16	S.		Breaker No. 5,	Nanticoke,	Wrist fractured by falling from a ladder.
	19,	49	Henry Warner,	Bankman,	21	M.	1	Hollenback breaker,	Wilkes-Barre,	Scalded on face and chest by escaping steam.
	22,	52	William R. Hampson,	Laborer,	26	M.		South Wilkes-Barre,	Wilkes-Barre,	Eye destroyed by a piece of coal flying from a rib.
	23,	50	Frank Mechcheck,	Miner,	26	S.		Alden,	Alden,	Ankle fractured by being struck by a piece of coal from a blast when 30 feet away.
	27,	51	Peter Sorenson,	Carpenter,	24	S.		Breaker No. 5,	Nanticoke,	Arm broken; fell a depth of sixteen feet from a scaffold in jig-house.
	27,	53	William Davies,	Driver,	21	S.		South No. 1 shaft,	Nanticoke,	Knee severely hurt by being jammed between cars.
	27,	54	Ed. R. Williams,	Runner,	20	S.		South No. 1 shaft,	Nanticoke,	Collar bone fractured; car jumped track and he fell from the brake.
April	2,	55	George Nelson,	Miner,	34	M.		Shaft No. 2,	Plymouth,	Ankle severely bruised; car jumped track and jammed his foot against the rib.
	5,	56	Stanley Shavitzki,	Laborer,	24	S.		Slope No. 4,	Nanticoke,	Severely cut on leg by a piece of coal falling from the side of breast.
	8,	57	John Ashton,	Shaftman,	20	S.		South No. 1 shaft,	Nanticoke,	Severely injured by ice falling in the shaft.
	9,	58	Peter Lyons,	Door-tender,	15	S.		Franklin,	Wilkes-Barre,	Leg severely lacerated by falling under a car.

TABLE NO. 5.—*Continued.*

Date of Accident.	Number of Accident.	Name of Person.	Occupation.	Age.	Married.	Number of Children.	Name of Colliery.	Location—Luzerne County.	Nature and Cause of Accident.
Apr. 9,	59	Simon Marticavit h, ...	Miner, ...	35	M.	1	Shaft No. 2, ...	Nanticoke, ...	All more or less severely burned by an explosion of gas while on the way into the gangway in the morning. At a high point in the gangway where gas feeders were found, a door had been erected to raise the air current to keep the gas from accumulating. Some persons who had gone in before these men left this door stand open. When these men reached it they closed the door and the air moved the accumulated gas upon their lamps and exploded it.
9,	60	Stanley Zaroaf.	Miner.	27	M.	....			
9,	61	Marian Guzaski	Laborer, ...	35	M.	....			
9,	62	Wadick Gardiskski, ...	Laborer, ...	35	S.	....			
9,	63	Frank Kopshinski.	Laborer, ...	28	M.	....			
9,	64	Morris Williams, ...	Driver.	17	S.	....	South Wilkes-Barre, ...	Wilkes-Barre, ...	Severely crushed between car and rib, caused by his mule kicking.
11,	65	Mike Serouki.	Miner.	34	M.	4	Baltimore No. 2, ...	Wilkes-Barre twp.,	Leg broken by a fall of top coal.
11,	66	Wilbur Titus, ...	Runner, ...	22	S.	....	Shaft No. 6, ...	Glen Lyon, ...	Hand severely crushed by being caught between block and car while lifting it to the track.
12,	67	Walter Francis.	Driver boss, ...	45	M.	4	Shaft No. 1.	Edwardsdale, ...	Leg broken by being struck by the slope rope.
17,	68	Steven Bradley, ...	Miner, ...	30	M.	1	Shaft No. 3, ...	Edwardsdale, ...	Burned by the explosion of half a keg of powder, which ignited by a spark from his lamp.
19,	69	Andro Yaminda.	Slate picker, ...	14	S.	....	Breaker No. 2, ...	Edwardsdale, ...	Several toes crushed in cog wheels by going where he had no business.
22,	70	William Weaver, ...	Runner, ...	19	S.	....	Breaker No. 5, ...	Nanticoke, ...	Foot severely injured; crushed between cars.
22,	71	Charles Lasky, ...	Laborer.	21	S.	....	South Wilkes-Barre, ...	Wilkes-Barre, ...	Severely cut on head and arm, caused by a blast bursting through a pillar.
29,	72	John Parrish, ...	Dumpman, .. .	28	S.	....	Breaker No. 2, Holl.. ..	Wilkes-Barre.	Arm broken by being caught between a car and an upright stick on dirt plane.
May 1,	73	Mike Sehlight, ...	Laborer, ...	27	S.	..	Franklin, ...	Wilkes-Barre, ...	Face and hands burned by an explosion of gas.

	7,	74	J. P. Faust,	Miner,	40	M.	6	Alden,	Alden,	Face and hands burned by an explosion of gas.
	8,	75	Benjamin Hall,	Miner,	30	M.	3	Franklin,	Wilkes-Barre,	Head and shoulders painfully hurt by a fall of rock.
	10,	76	John Hennegan,	Laborer,	36	M.	5	Avondale,	Plymouth twp.,	Severely hurt on hand and shoulder by a fall of coal.
	11,	77	James Gallagher,	Runner,	20	S.	....	Shaft No. 2,	Plymouth,	Jaw fractured and head and shoulder bruised by being crushed between a car and rib.
	11,	78	William R. Harbester,	Laborer,	25	M.	2	Woodward breaker,	Plymouth twp.,	Face, hands and body scalded by escaping steam.
	15,	79	William Pozbylski,	Miner,	36	....	....	Shaft No. 2,	Plymouth,	Back painfully injured by being thrown against a car.
	15,	80	Peter Zudick,	Miner,	39	M.	3	Lance No. 11,	Plymouth,	Burned by an explosion of gas.
	16,	80	Timothy Davis,	Timberman,	27	M.	2	Dorrance,	Wilkes-Barre,	Leg fractured by being crushed between a car and rib.
	17,	82	Terance Ryan,	Miner,	40	M.	5	Stanton,	Wilkes-Barre,	Severely crushed between a car and rib; he jumped out of a car on wrong side.
	17,	83	John Smith,	Laborer,	36	M.	2	Lance No. 11,	Plymouth,	Severely injured by a fall of roof.
	20,	84	Thomas Howells,	Car coupler,	20	S.	....	Breaker No. 5,	Nanticoke,	Arm and side injured by being crushed between cars.
	22,	85	Thomas Laubaugh,	Miner,	40	M.	2	Baltimore No. 3,	Wilkes-Barre twp.,	Bruised about head and body by a fall of rider coal.
	23,	86	Robert T. Watkins,	Miner,	50	M.	9	Dorrance,	Wilkes-Barre,	Face and hands burned; brushed a body of gas down upon his lamp and it exploded.
	24,	87	John Harkins,	Sinker,	25	S.	....	Maxwell No. 20,	Ashley,	Shoulder dislocated; James Mulhall fell from the bucket and landed upon him.
	24,	88	Ignatz Winskofski,	Laborer,	21	S.	....	Shaft No. 1, North,	Nanticoke,	Face and hands burned by an explosion of gas.
	24,	89	Lewis Kashinski,	Sinker,	36	M.	....	Auchincloss,	Hanover twp.,	Hand cut off and injured on head and arm. A pumpman ran the hoisting engine and pulled the rope out of the cone, which caused the chain to fall down the shaft upon these men.
	24,	90	William Cross,	Sinker,	39	M.	....			
	27,	91	John Rudas,	Miner,	29	S.	....	Franklin,	Wilkes-Barre,	Face and hands burned by an explosion of gas; the brattice was broken, causing gas to accumulate.
	28,	92	Mike Gorkis,	Miner,	38	....	....	Shaft No. 9,	Sugar Notch,	Leg painfully hurt by a fall of coal.
	30,	93	Joseph Williams,	Miner,	35	M.	....	No. 2, S. Wilkes-Barre,	Wilkes-Barre,	All more or less severely burned by an explosion of gas; a check door was left standing open; the driver, on seeing it, closed it; by this time a body of gas had accumulated up in a breast which was moved by the air current upon their lamps and exploded; they were not dangerously burned.
	30,	94	Arthus Jones,	Driver,	22	S.	....			
	30,	95	Lewis Davies,	Carpenter,	27	M.	1			
	30,	96	Henry French,	Carpenter,	30	M.	3			
	30,	97	Carl Magneson,	Laborer,	35	S.	....	Dorrance,	Wilkes-Barre,	Leg fractured by a fall of coal.
June	1,	98	Joseph Metcalf,	Driver,	17	S.	....	Shaft No. 2,	Nanticoke,	Ankle severely sprained by a mule jumping upon him.

TABLE No. 5.—*Continued.*

Date of Accident.	Number of Accident.	Name of Person.	Occupation.	Age.	Married.	Number of Children.	Name of Colliery.	Location—Luzerne County.	Nature and Cause of Accident.
June 4,	99	John Plant,	Miner,	45	M.	....	Shaft No. 1, South,	Nanticoke,	Burned by an explosion of gas; a fall of coal drove the gas upon his lamp.
6,	100	John Neteskoski,	Miner,	28	M.	....	Slope No. 18,	Wanamie,	Leg broken by a fall of rock at face of breast.
7,	101	Mike Shelanish,	Miner,	25	S.	....	Nottingham,	Plymouth,	Leg fractured and head cut by a premature blast.
10,	102	Rees Llewelyn,	Driver,	16	S.	....	Shaft No. 2,	Nanticoke,	Fell and broke his arm while walking down a breast.
10,	103	Joseph Price,	Runner,	22	M.	....	Nottingham,	Plymouth,	Some teeth kicked loose by a mule; cut on head also.
11,	104	Thomas Adams,	Miner,	39	M.	3	Dodson,	Plymouth,	Leg broken; he failed to get out of the way when barring coal down.
12,	105	John George,	Door-tender,	15	S.	....	Buttonwood,	Hanover township.	Painfully injured by a runaway car.
17,	106	Axtel Johnson,	Timberman,	24	S.	....	Shaft No. 9,	Sugar Notch,	Leg broken by a fall of coal at face of gangway.
17,	107	Andrew Laurence,	Driver,	20	S.	....	Nottingham,	Plymouth,	Arm badly lacerated by being caught between timber load and roof.
18,	108	Mike Lenahan,	Miner,	36	M.	3	Maxwell No. 20,	Ashley,	Bruised on leg and head by a fall of top slate.
18,	109	Peter Bunka,	Miner,	56	M.	2	North shaft No. 1,	Nanticoke,	Painfully injured; crushed between a car and rib; car jumped track.
24,	110	John Thomas,	Footman,	25	S.	....	Hillman vein,	Wilkes-Barre,	Fracture of leg by being kicked by a mule.
24,	111	Peter Coates,	Miner,	46	M.	7	Slope No. 4,	Nanticoke,	Collar bone fractured by falling when running from a blast.
24,	112	John Tornofski,	Miner,	39	S.	....	Shaft No. 6,	Glen Lyon,	Face and hands burned by an explosion of gas, which was caused by carelessness.
28,	113	Frank Matablefski,	Miner,	63	M.	6	South shaft No. 1,	Nanticoke,	Leg fractured by a fall of coal.
28,	114	Marian Patroski,	Laborer,	27	S.	....	Woodward,	Plymouth twp.,	Badly crushed between cars and face of gangway; Robert Richards was killed at the same time.
July 2,	115	Evan W. Thomas,	Miner,	33	M.	2	Woodward,	Plymouth twp.,	Foot severely crushed by a fall of top coal.
3,	116	William Davidson,	Laborer,	47	M.	4	Baltimore shaft No. 2,	Wilkes-Barre,	Ankle fractured by a fall of rock.

	6,	117	Stanley Hurish,	Laborer,	21	S.	Shaft No. 6,	Glen Lyon,	All were more less severely burned by an explosion of gas at the head of the new No. 3 plane. The gas had gathered over the drum; Peter Lore, who was fatally burned, not knowing that the gas was there, went up to do some work and fired it, causing an explosion. These men were employed at various points between that point and the head of the plane, and all were burned. Samuel Langley, fire boss, who was with them, had not discovered the gas, but evidently he had suspected its existence.
	6,	118	Thomas Rogers,	Co. laborer,	20	S.			
	6,	119	Charles Williams,	Co. laborer,	40	M. 5			
	6,	120	Richard Stevens,	Co. laborer,	53	M. 1			
	6,	121	John Stevens,	Co. laborer,	24	S.			
	6,	122	Leary Allen,	Co. laborer,	25	M. 1			
	12,	123	Robert Hall,	Miner,	40	M. 1	Franklin,	Wilkes-Barre,	Leg fractured by a fall of rock.
	15,	124	John Klenshack,	Laborer,	30	M. 3	Franklin,	Wilkes-Barre,	Leg fractured by a fall of coal.
	18,	125	James Johnson,	Miner,	36	S.	Parrish,	Plymouth,	Thigh fractured by a premature blast.
	22,	126	David Watkins,	Miner,	61	W. 2	Lance No. 11,	Plymouth,	Badly injured by a premature blast. It fired while he was lighting the match.
	26,	127	Joseph Powell,	Miner,	28	S.	Slope No. 4,	Nanticoke,	Leg broken by a fall of coal.
	26,	128	David Bolton,	Runner,	20	M. 1	Woodward breaker,	Plymouth twp.,	Hand bruised and lacerated; caught under a car wheel.
	30,	129	Frank W. Richards,	Timberman,	34	M. 4	Maxwell No. 20,	Ashley,	Spine and shoulder severely injured; caught between car and roof when riding up the slope.
Aug.	2,	130	Ed. E. Roberts,	Miner,	30	M.	Woodward,	Plymouth twp.,	Two ribs fractured and body bruised by a fall of top coal.
	5,	131	George W. Williams,	Runner,	21	S.	Stanton,	Wilkes-Barre,	Collar bone fractured; crushed between a car and rib.
	5,	132	John Vivian,	Miner,	47	M. 5	South No. 1 shaft,	Nanticoke,	Arm fractured and hurt on back and legs by a fall of coal.
	8,	133	George McGinness,	Miner,	35	M. 4	South No. 1 shaft,	Nanticoke,	Back and hips injured by a fall of top slate.
	8,	134	John R. Mathews,	Laborer,	47	M. 7	Avondale,	Plymouth twp.,	Leg fractured by coal tumbling down from face of breast.
	9,	135	John Foley,	Miner,	38	M. 6	Lance No. 11,	Plymouth,	Leg broken; had it tangled in rope at foot of slope.
	13,	136	Andrew Smith,	Driver,	20	S.	Franklin,	Wilkes-Barre,	Leg fractured; caught between a loose rail and end of car.
	13,	137	Edwin J. Brown,	Miner,	30	M. 1	Dorrance,	Wilkes-Barre,	Both burned on face and hands by an explosion of gas; a fall of roof sent the gas upon their lamps from above the timbering.
	13,	138	John Graydack,	Laborer,	19	S.			
	14,	139	August Bodell,	Miner,	36	M. 4	Shaft No. 1, Geo. seam.	Nanticoke,	Severely injured about chest by being crushed between a car and prop.
	16,	140	John Grishka,	Miner,	35	M. 1	Dodson,	Plymouth,	Thigh fractured by a fall of bony coal.
	17,	141	John Popshack,	Miner,	35	M. 3	Shaft No. 6,	Glen Lyon,	Head and back severely injured; blast fired when he was returning, thinking it had "missed."
	19,	142	George Wydoski,	Driver,	16	S.	Stanton,	Wilkes-Barre,	Leg badly injured; crushed under a car while putting it on the track.
	20,	143	Lewis E. Jones,	Footman,	36	M. 2	Shaft No. 2,	Nanticoke,	Foot crushed; caught in latch and car ran upon it.

TABLE No. 5.—*Continued.*

Date of Accident.	Number of Accident.	Name of Person.	Occupation.	Age.	Married or Single.	Number of Children.	Name of Colliery.	Location—Luzerne County.	Nature and Cause of Accident.
Aug. 20,	144	John Labacher,	Laborer,	26	S.	....	Shaft No. 3,	Edwardsdale,	Severely cut on head, and back injured by a fall of coal.
21,	145	Thomas D. Thomas,	Laborer,	38	M.	7	Woodward,	Plymouth twp.,	Leg fractured by a thin slate falling from roof.
22,	146	Frank Jambko,	Labroer,	27	S.	....	No. 1 Red Ash,	Wilkes-Barre twp.,	Severely cut about face by coal thrown from a blast.
23,	147	Peter Liswig,	Laborer,	32	S.	....	Lance No. 11,	Plymouth,	Burned by an explosion of gas.
24,	148	Charles Butville,	Laborer,	28	S.	....	Nottingham,	Plymouth,	Leg and hips painfully; crushed between cars.
26,	149	Alex. Melnick,	Laborer,	22	S.	....	Alden,	Alden,	Leg and arm fractured by a fall of coal.
29,	150	John Mellet,	Runner,	20	S.	....	Dorrance,	Wilkes-Barre,	Severely hurt about hips; crushed between cars.
30,	151	Daniel McCahill,	Miner,	38	S.	....	Dorrance,	Wilkes-Barre,	Hand badly hurt by being jammed between end of drill and rib.
Sept. 3,	152	David Smith,	Miner,	60	S.	....	Avondale,	Plymouth twp.,	Seriously injured on head and face by a fall of coal.
3,	153	Joe. Groboski,	Miner,	30	M.	1	Slope No. 4,	Nanticoke,	Face and head severely hurt by a fall of coal.
3,	154	Anthony Krouse,	Laborer,	27	M.	....	West Nanticoke,	West Nanticoke,	Arm broken by a fall of top rock.
5,	155	Robert Smith,	Miner,	55	M.	4	Stanton,	Wilkes-Barre,	Arm fractured by a fall of slate from beneath the top coal.
6,	156	Barney Dutch,	Headman,	31	M.	....	Lance No. 11,	Plymouth,	Ribs fractured and cut on head by runaway car.
9,	157	Mike Jacobs,	Laborer,	30	M.	3	Slope No. 4,	Nanticoke,	Hand and one eye severely injured by a premature blast.
9,	158	Jonah Roberts,	Fire boss,	34	M.	2	Nottingham,	Plymouth,	Small bone of leg fractured by a fall of slate.
17,	159	Thomas Duffy,	Driver's helper,	17	S.	....	Woodward,	Plymouth twp.,	Five teeth kicked out by a mule.
17,	160	Victor Voichecofski,	Laborer,	20	S.	....	Breaker No. 5,	Nanticoke,	Fingers crushed while trying to block a car.
19,	161	John T. Richards,	Door-tender,	15	S.	....	Shaft No. 2,	Nanticoke,	Severely injured; car took wrong track and crushed him against another car.
23,	162	John Cavanaugh,	Miner,	46	M.	2	Alden,	Alden,	Seriously injured about head, back and leg by a fall of coal.

	21,	163	Frank Gledt,	Laborer,	26	S.	....	Tunnel No. 6,	Glen Lyon,	Ruptured while trying to roll a heavy piece of rock.
Oct.	8,	164	John Enotovitch,	Laborer,	20	S.	....	Shaft No. 1, Geo. seam,	Nanticoke,	Small bone of ankle fractured by a fall of rock.
	12,	165	Mike Kukofski,	Miner,	40	M.	4	North shaft No. 1,	Nanticoke,	Jaw fractured and arm injured by a premature blast.
	15,	166	William Gage,	Miner,	29	S.	....	Franklin,	Wilkes-Barre,	Leg fractured at ankle; was pulling rock down and it struck him.
	15,	167	Richard Roderick,	Miner,	63	M.	....	Empire,	Wilkes-Barre,	Engineer lost control of the engine when they were on the cage descending the shaft. Cage struck the bottom so hard that the shock injured these four men severely.
	15,	168	William Savage,	Miner,	33	S.	....			
	15,	169	William Casper,	Miner,	30	S.	....			
	15,	170	Mike Macavage,	Miner,	36	M.	1			
	18,	171	Peter Kunkle,	Laborer,	24	S.	....	Slope No. 6,	Glen Lyon,	Head severely injured by a fall of coal.
	19,	172	Mike Doulut,	Laborer,	32	M.	2	Alden,	Alden,	Face and hands severely burned by an explosion of gas.
	21,	173	Anthony Gillespie,	Miner,	56	W.	3	Baltimore tunnel,	Wilkes-Barre,	Back and foot painfully injured by coal which he was barring down.
	22,	174	Dennis Noonan,	Slope tender,	19	S.	....	Nottingham,	Plymouth,	Knee painfully injured by being struck by rope at head of slope.
	24,	175	Joseph Yoenski,	Laborer,	27	S.	....	Shaft No. 2,	Nanticoke,	Leg fractured by a fall of coal.
	26,	176	John Delaney,	Miner,	26	S.	....	Alden,	Alden,	Face and hands burned by an explosion of powder when pushing it into a hole.
	27,	177	Joseph Rosykany,	Laborer,	20	S.	....	Breaker No. 5,	Nanticoke,	Turned water on hot ashes at the boilers and was severely scalded by the steam.
	29,	178	William Gilgallon,	Miner,	37	M.	....	Shaft No. 1,	Edwardsdale,	Arm broken by a premature blast.
	30,	179	Ludwig Marasavage,	Miner,	36	M.	....	Woodward,	Plymouth twp.,	Severe scalp wound by being struck by coal falling when he was barring coal loose.
	31,	180	Joseph Benius,	Miner,	30	S.	....	Hillman vein,	Wilkes-Barre,	Severely burned by an explosion of gas in a breast. S. Stoeck was fatally burned at the same time.
Nov.	1,	181	Anthony Bartovitch,	Miner,	32	S.	....	Shaft No. 2,	Nanticoke,	Hip fractured by a fall of bone-coal; he was cautioned against going under it, but he went.
	1,	182	Thomas Hill,	Driver,	18	S.	....	Shaft No. 2,	Nanticoke,	Arm crushed under cars; afterwards amputated.
	2,	183	Frank O'Hara,	Laborer,	29	S.	....	South Wilkes-Barre,	Wilkes-Barre,	Painfully injured by a fall of coal.
	2,	184	Thomas B. Jenkins,	Footman,	23	S.	....	Parrish,	Plymouth,	Leg crushed under cars; afterwards amputated.
	2,	185	Joseph Germitski,	Laborer,	29	M.	2	Shaft No. 1, Geo. seam,	Nanticoke,	Face and hands slightly burned by an explosion of gas.
	5,	186	Hugh W. Jones,	Miner,	56	M.	2	Stanton,	Wilkes-Barre,	Both were seriously injured by a large fall of top coal; had a car not been at the face both would have been crushed to death.
	5,	187	Joseph Teritz,	Laborer,	22	S.	....			
	7,	188	Peter Yes,	Laborer,	27	M.	....	Nottingham,	Plymouth,	Thigh fractured; a piece of rock which had been barred down rolled over upon him.
	7,	189	John Finnegan,	Miner,	45	M	5	Nottingham,	Plymouth,	Collar bone fractured and otherwise hurt by a blast firing while he was approaching, thinking it had "missed."

TABLE No. 5.—*Continued.*

Date of Accident.	Number of Accident.	Name of Person.	Occupation.	Age.	Married or Single.	Number of Children.	Name of Colliery.	Location—Luzerne County.	Nature and Cause of Accident.
Nov. 8,	190	Ben. W. Thomas,	Miner,	54	M.	7	Empire,	Wilkes-Barre,	Severely injured by a fall of rock.
13,	191	Albert Jones,	Runner,	20	S.	....	Alden,	Alden,	Two ribs broken and severely cut and bruised on head; cars ran over him.
16,	192	William Simonds,	Miner,	52	M.	2	Stanton,	Wilkes-Barre,	Severely bruised and crushed by a premature blast.
18,	193	Thomas Williams,	Laborer,	31	S.	....	Conyngham,	Wilkes-Barre,	Arm fractured and bruised and cut on head and body by a fall of rock in rock tunnel.
18,	194	William Keirle,	Miner,	30	M.	6	Shaft No. 4,	Edwardsdale,	Face and hands burned by an explosion of gas.
21,	195	Christ. Brace,	Laborer,	48	M.	....	Shaft No. 4,	Edwardsdale,	Collar bone dislocated by cars running upon him.
23,	196	John Olshefski,	Miner,	40	M.	5	Alden,	Alden,	Severely injured; cars ran upon him. Was told the cars were coming, but he walked to meet them.
25,	197	James Hosey,	Miner,	49	M.	2	Parrish,	Plymouth,	Thigh fractured; platform gave way when he and others were standing on it lifting a collar, and the collar fell on him.
30,	198	John Ede,	Miner,	31	....	....	Lee,	Newport twp.,	Thigh fractured by a fall of coal.
Dec. 4,	199	Michael Gorham,	Runner,	19	S.	....	Stanton,	Wilkes-Barre,	Arm fractured by being caught between a car and door-frame.
5,	200	William Irish,	Laborer,	26	S.	....	Woodward,	Plymouth twp.,	Face and hands burned by an explosion of gas.
5,	201	Michael Jaskovitch,	Miner,	33	M.	1	Dorrance,	Wilkes-Barre,	Back severely injured by a fall of bone at face of breast.
6,	202	Llewelyn Evans,	Headman,	19	S.	....	Shaft No. 1,	Edwardsdale,	Leg broken by being struck by the rope at head of slope.
6,	203	Dan. McMahon,	Runner,	17	S.	....	Alden,	Alden,	Back and legs bruised; car struck headblock and turned on its side upon him.
6,	204	Albert Chisco,	Miner,	29	S.	....	Alden,	Alden,	Both burned, the laborer severely, by an explosion of gas. A blast opened a feeder, the gas accumulated and ignited from their lamps.
6,	205	Joseph Stacra,	Laborer,	26	S.	....			

6,	206	John Rothobish,	Miner,	27	S.	Stanton,	Wilkes-Barre	Leg fractured; while riding on top of a car loaded with T-iron rails his legs was caught between them.
10,	207	Thomas Jenkins,	Laborer,	40	M.	Bliss,	Hanover twp.,	Severe scalp wound; while barring loose rock down, a piece of it struck him on the head.
10,	208	Eugene Simpson,	Driver,	19	S.	Woodward,	Plymouth twp.,	Leg fractured by being caught between cars.
14,	209	Louis Kressler,	Miner,	37	M. 3	Bliss,	Hanover twp.,	Severely injured; the laborer was only slightly hurt, by checker coal falling on Kressler at face of breast, and sliding down the pitch upon Thomas.
14,	210	Thomas Thomas,	Laborer,	25	M.			
16,	211	August Gnoss,	Carpenter,	35	M. 3	Breaker No. 7,	Nanticoke,	Scaffold gave way, causing him and a piece of casting to fall a distance of ten feet and he was painfully injured.
16,	212	Joseph Eynon,	Headman,	18	S.	Shaft No. 4,	Edwardsdale,	Leg fractured by being struck by a rope on slope.
18,	213	Edward Kilduff,	Laborer,	17	S.	Baltim'e tunnel breaker,	Wilkes-Barre,	Crushed betwen car and breaker-timber; and painfully injured.
19,	214	Frank Riskey,	Sinker,	30	S.	Auchincloss No. 1,	Hanover twp.,	Fell a distance of fifty feet in the shaft; the plank upon which he was standing was broken by a suspended guide; he was severely injured.
19,	215	Paul Muscavage,	Miner,	27	S.	Stanton,	Wilkes-Barre,	Both burned on hands and face by an explosion of gas; allowing the manway to fill with coal caused the gas to accumulate, and it ignited from their lamps.
19,	216	John Dumbroskie,	Laborer,	25	S.			
27,	217	Frank Cumminsky,	Dumpman,	46	M. 5	Woodward breaker,	Plymouth twp.,	Arm fractured and body bruised by falling from the cage in the tower.
27,	218	Patrick Campbell,	Miner,	49	M. 9	Shaft No. 9,	Sugar Notch,	Leg fractured; was barring loose fire-clay down when it rolled over and injured him.
28,	219	Peter Raub,	Laborer,	44	M. 5	Baltimore tunnel,	Wilkes-Barre,	Severely injured by a fall of top rock.
28,	220	George Gilbert,	Miner,	35	M. 5	North shaft No. 1,	Nanticoke,	Back painfully injured by a fall of rock.
30,	221	Timothy Spargo,	Miner,	41	M. 3	Shaft No. 2,	Plymouth,	Severely cut and bruised by a blast; four squibs had missed and he was returning, thinking the fifth had failed, when the blast exploded.

Recapitulation of Non-Fatal Accidents.

Occupation.	Number.	Nationality.	Number.	Causes of Accidents.	Number
Miners,	89	Americans,	26	By explosions of fire-damp,	45
Laborers,	54	Welsh,	43	By falls of roof and coal,	65
Drivers and runners,	29	Irish,	25	By mine cars, underground,	38
Door-tenders,	1	English,	25	By explosions of powder and blasts,	21
Fire bosses,	2	Polish,	80	By miscellaneous causes, underground,	32
Sinkers,	5	Hungarian,	9	By miscellaneous causes, on surface,	20
Daymen, inside,	22	German,	7		
Outside,	19	Scotch,	2		
		Swedish,	1		
		Danish,	1		
		Italian,	1		
Total,	221	Total,	221	Total,	221

FIFTH ANTHRACITE DISTRICT.

(LUZERNE AND CARBON COUNTIES.)

Hazleton, Pa., March 15, 1896.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: I have the honor of submitting to you my annual report as Inspector of Mines for the Fifth Anthracite District for the year 1895.

I assumed the duties of this office on September 6th, consequently my report is not as complete in some respects as it would have been, had I been Inspector during the entire year.

The total production of coal for the year was 6,590,966 tons, an increase over that of 1894 of 458,339 tons.

The number of lives lost in and about the mines was 52, being 6 less than the year previous. The widows and orphans left by the accidents were 24 and 50 respectively.

The number of severe injuries was 102, an increase of 7 over 1894.

The quantity of coal produced per life lost was 126,750 tons, an increase of 10,309 tons per fatality over the previous year.

The usual tables and statistics are included, with a brief description of some of the improvements made; also a few remarks on some of the fatal accidents, and a full report of the disastrous mine fire at Hazleton mines No. 1, Lehigh Valley Coal Company.

Very respectfully yours,

JAMES E. RODERICK,
Inspector of Mines.

Tons of Coal Mined During the Year 1895.

A Pardee & Co.,	306,972.03
The Cross Creek Coal Company,	1,150,980.16
Lehigh Coal and Navigation Company,	789,966.17
G. B. Markle & Co.,	670,802.18
Lehigh Valley Coal Company,	707,439.13
Linderman & Skeer,	470,551.13
A. S. Van Wickle,	724,676.02
Pardee Bros. & Co.,	393,584.01

Calvin Pardee & Co.,	113,016.13
Pardee Sons & Co.,	234,121.00
Upper Lehigh Coal Company,	281,981.18
Lehigh and Wilkes-Barre Coal Company,	205,627.19
M. S. Kemmerer & Co.,	160,025.08
C. M. Dodson & Co.,	200,239.00
J. S. Wentz & Co.,	106,700.00
The Evans Mining Company,	35,000.00
New Ebervale Coal Company,	39,280.05
Total,	6,590,966.06

Number of Fatal Accidents and Tons of Coal Mined Per Life Lost.

Names of Operators.	Number of lives lost.	Tons of coal mined per life lost.
A. Pardee & Co.,	4	76,744
The Cross Creek Coal Company,	12	95,919
Lehigh Coal and Navigation Company,	2	394,983
G. B. Markle & Company,	1	670,802
Lehigh Valley Coal Company,	9	78,604
Linderman & Skeer,	2	235,275
A. S. Van Wickle,	13	55,744
Pardee Bros. & Company,	1	393,583
Calvin Pardee & Company,		
Pardee Sons & Company,		
Upper Lehigh Coal Company,	2	140,990
Lehigh and Wilkes-Barre Coal Company,	2	102,814
M. S. Kemmerer & Company,		
C. M. Dodson & Company,	3	66,746
J. S. Wentz & Company,	1	106,700
The Evans Coal Company,		
New Ebervale Coal Company,		
Total and average,	52	126,750

Number of Non-Fatal Accidents and Tons of Coal Mined Per Person Injured.

Names of Operators.	Number of persons injured.	Tons of coal mined per person injured.
A. Pardee & Company,	12	25,581
The Cross Creek Coal Company,	9	127,886
Lehigh Coal and Navigation Company,	8	98,798
G. B. Markle & Company,	2	335,401
Lehigh Valley Coal Company,	24	29,477
Linderman & Skeer,	12	39,212
A. S. Van Wickle,	6	120,779
Pardee Brothers & Company,	3	131,194
Calvin Pardee & Company,	2	56,508
Pardee Sons & Company,	7	33,446
Upper Lehigh Coal Company,	5	56,396
Lehigh and Wilkes-Barre Coal Company,	3	68,588
M. S. Kemmerer & Company,	3	53,342
C. M. Dodson & Company,		
J. S. Wentz & Company,	4	26,675
The Evans Mining Company,	2	17,500
New Ebervale Coal Company,		
Total and average,	102	64,617

Number of Fatal and Non-Fatal Accidents, and Tons of Coal Mined Per Accident.

Names of Operators.	Number of accidents, fatal and non-fatal.	Tons of coal mined per fatal and non-fatal accidents.
A. Pardee & Company,	16	19,186
The Cross Creek Coal Company,	21	54,808
Lehigh Coal and Navigation Company,	10	78,296
G. B. Markle & Company,	3	223,601
Lehigh Valley Coal Company,	33	21,437
Linderman & Skeer,	14	33,611
A. S. Van Wickle,	19	38,140
Pardee Brothers & Company,	4	98,376
Calvin Pardee & Company,	2	56,508
Pardee Sons & Company,	7	33,446
Upper Lehigh Coal Company,	7	40,283
Lehigh and Wilkes-Barre Coal Company,	5	41,134
M. S. Kemmerer & Company,	3	53,342
C. M. Dodson & Company,	3	66,745
J. S. Wentz & Company,	5	21,340
The Evans Mining Company,	2	17,500
New Ebervale Coal Company,		
Total and average,	154	42,798

Classification of Fatal and Non-Fatal Accidents.

Causes of Accidents.	Number killed.	Number injured.	Total.
By explosion of fire-damp,	1	9	10
By falls of coal, roof and sides,	22	39	61
By falls of coal, rock and clay in strippings,	2		2
By mine cars inside of mines,	6	9	15
By mine cars on surface,	7	18	25
By explosions of powder at strippings,	4	1	5
By premature blast inside mines,	1	4	5
By premature blasts at strippings,	2	2	4
By machinery on surface,	2		2
By boiler explosion,	1		1
By miscellaneous causes, inside and outside,	4	20	24
Total from all causes,	52	102	154

Recapitulations of Fatal Accidents as Per Table No. 4.

Occupations.	Number killed.	Per cent.
Miners,	18	34.61
Miners' laborers,	8	15.36
Mine foremen,	1	1.92
Drivers and runners,	3	5.77
Door tenders,	1	1.92
Other company men,	3	5.77
Outside laborers, etc.,	14	26.92
Engineers and firemen,	2	3.84
Slate pickers,	2	3.84
	52	100.00

Nationality.	Number killed.	Per cent.
Americans,	14	26.92
Welsh,	3	5.76
English,	2	3.84
Irish,	3	5.77
Germans,	2	3.84
Hungarians,	18	34.61
Polish,	5	9.61
Austrians,	2	3.84
Italians,	3	5.76
	52	100.00

Causes of Accidents.	Number killed.	Per cent.
By explosion of fire-damp,	1	1.92
By falls of all kinds, including strippings,	24	46.15
By premature blasts in mines,	1	1.92
By mine cars in mines,	6	11.54
By premature blasts on surface and strippings,	2	3.84
By powder explosions on surface and strippings,	4	7.69
By cars on surface and strippings,	7	13.27
By boiler explosion,	1	1.92
By machinery,	2	3.84
By miscellaneous causes, inside and outside,	4	7.69
	52	100.00

Recapitulations of Non-Fatal Accidents as Per Table No. 5.

Occupations.	Number injured.	Per cent.	Nationality.	Number injured.	Per cent.	Causes of Accidents.	Number injured.	Per cent.
Miners,	42	41.17	Americans,	19	18.62	By explosion of fire-damp,	9	8.82
Miners' laborers,	14	13.72	Welsh	2	1.96	By falls of all kind in the mines and strippings,	39	38.23
Mine foremen,	1	.98	English,	5	4.90	By premature blasts in mines,	4	3.92
Drivers and runners,	9	8.82	Irish,	21	20.58	By cars in mines,	9	8.82
Door tenders,			Germans,	5	4.90	By premature blasts in strippings,	2	1.96
Other company men,	2	1.96	Hungarians,	22	21.56	By powder explosions in strippings,	1	.98
Outside laborers, etc.,	27	26.47	Polish,	18	17.66	By powder explosions,		
Engineers and firemen,	3	2.94	Austrians,	5	4.90	By cars about breaker and strippings,	18	17.66
Slate pickers,	4	3.92	Italians,	5	4.90	By boiler explosions,		
						By machinery,	1	.98
						By miscellaneous causes, inside and outside	19	18.62
	102	100.00		102	100.00		102	100.00

Mine Improvements During 1895.

The improvements made in this district during the past year, were neither extensive nor expensive. The following are the improvements as reported:

The Cross Creek Coal Company.

Drifton No. 1 continued to drive gangways in the Wharton and Mammoth vein which are now driven to a distance of three miles from which openings no coal was taken out, except from the gangways and airways. About 2,000 feet east of No. 1 slope, and inside slope was sunk to the basin, to develope the basin towards Highland. This was sunk in the Buck Mountain vein.

Two flue boilers 66 inches diameter, 12 feet long were placed in the rear of the cylinder boilers to utilize the waste gases.

A fresh water pumping station was erected, consisting of one Erie boiler, one Downie artesian well pump and two tanks of one hundred thousand gallons each, to receive the water.

The gangways in the Buck Mountain vein have continually advanced to the west, and reached a point from which No. 2 basin commenced to dip toward Lattimer again, after having risen about 320 feet vertically above the bottom of the No. 2 slope.

Eckley.—Large strippings are in progress at the eastern or spoon end of slope No. 4, and the western spoon end of slope No. 1, which as estimated will yield about 275,000 tons of coal.

Two 60 inch flue boilers complete were placed and equipped with Coxe's traveling grate, built by the Coxe Iron Manufacturing Company.

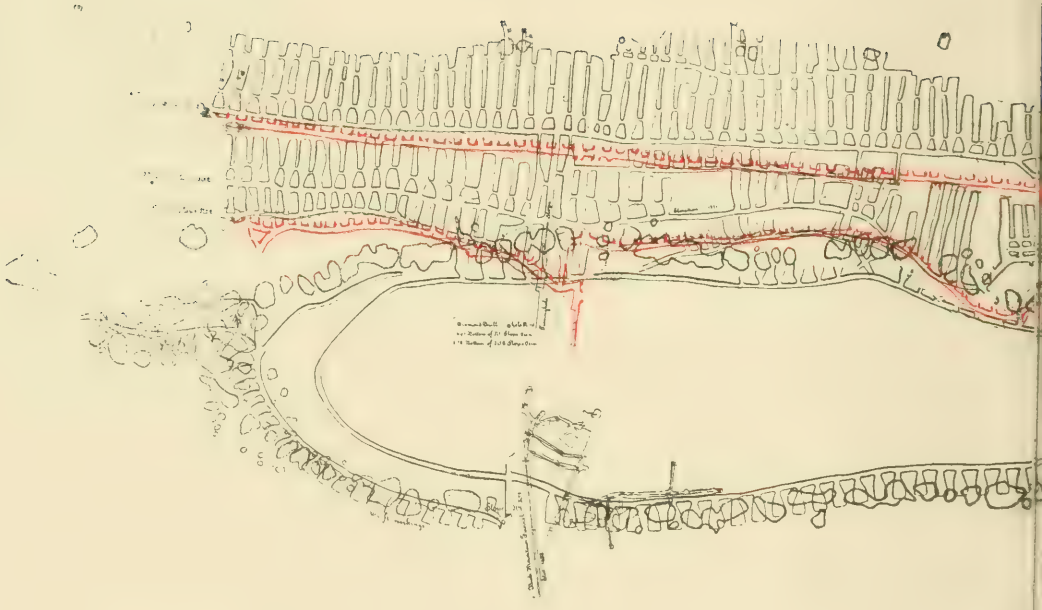
At the Buck Mountain property the principal improvements consisted in completing an outside railroad connection between the Eckley breaker and Buck Mountain.

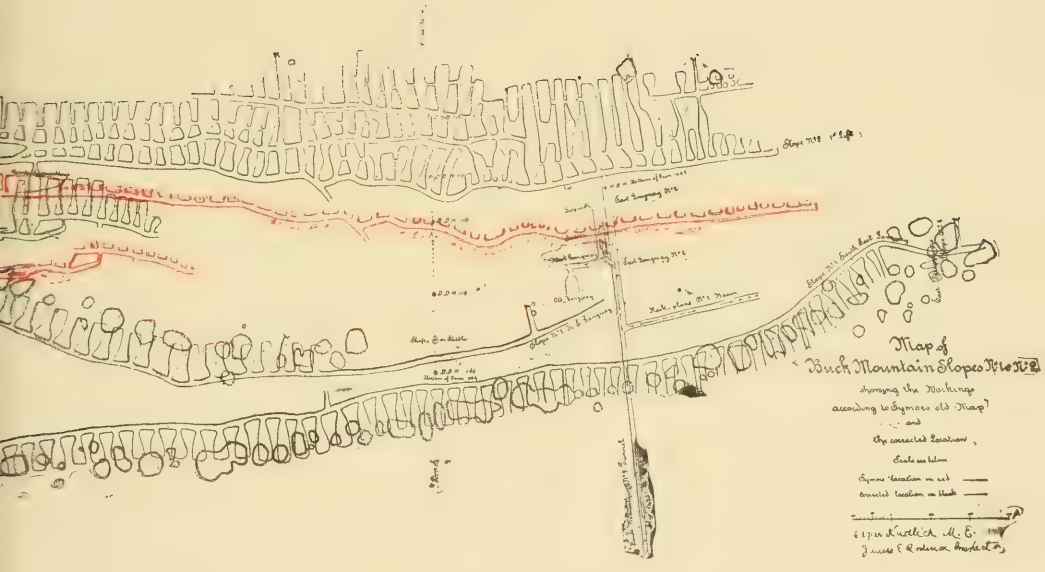
The construction of a plane from a point near the eastern end of No. 1 basin along the mountain towards the old town of Cliffton. At the head of the plane the boilers are located which are fitted with the Coxe mechanical stoker.

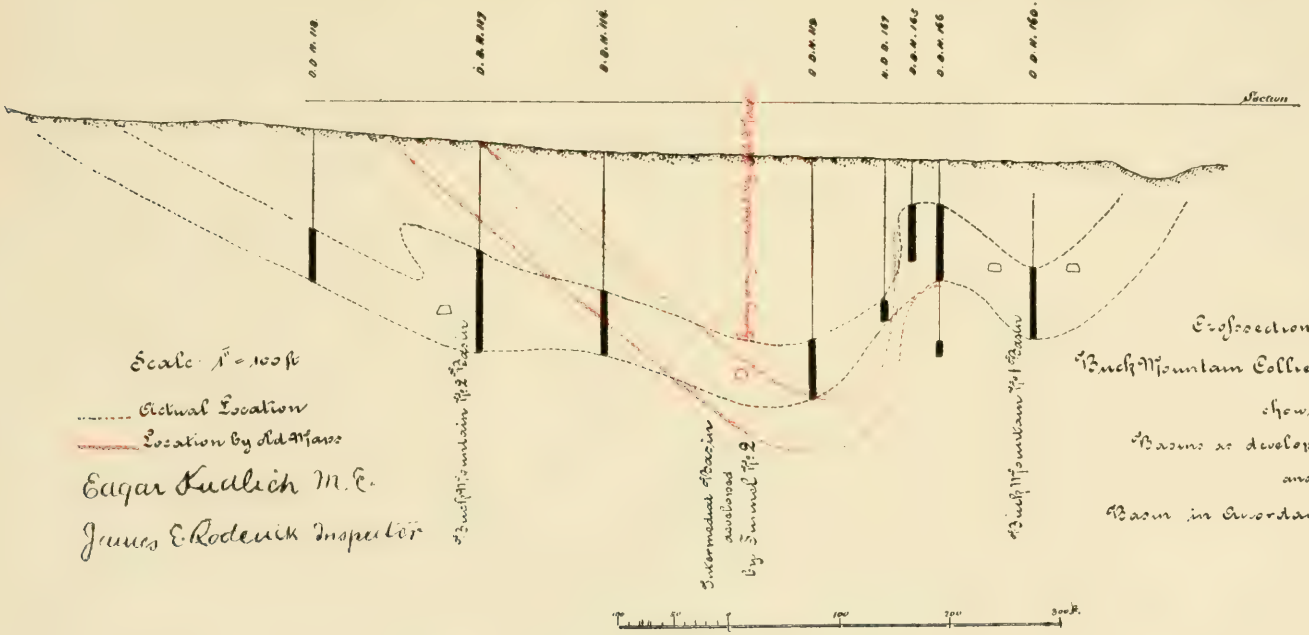
Two large reservoirs were constructed about one-half mile east which tided them nicely over the drought.

From the foot of this plane an outside track about one mile in length has been constructed, which connects the two drainage tunnels with the plane.

Tunnel No. 1 was driven by the old Buck Moutain Company as one of the first developments, but had never been actually brought into use because it was first stopped short of the vein, then when continued to the basin, it reached only the largely worked out sections and it was used as swamp for waste water.




Map of
Buck Mountain Slopes No 1 & No 2
showing the Workings
according to Symons old Map
and
the corrected Locations
Scale as below
Symons location in red
corrected location in black
Surveyed & drawn by
H. H. Luckock M. E.
James E. Roberts Assistant



Scale 1" = 100 ft

Actual Location

Location by old Maps

Edgar Kudlich M.E.

James E. Roderick Inspector

Cross section through
Buck Mountain Collieries Slope No 1 & No 2
showing
Basins as developed by Borings
and
Basin in accordance with old Maps

No. 2 tunnel which has only been driven and completed this year is intended to drain the principal parts of the old slope No. 2, and the basin lying between the old No. 1 basin and the north side of the No. 2 basin.

The most interesting feature is, that a great area of unworked coal has been developed and proved by this No. 2 tunnel. The mine maps as used by the old Buck Mountain Coal Company, and with the property transferred to the late Mr. Eckley B. Coxe indicate that slope No. 1 and slope No. 2 workings had approached so closely that No. 1 workings had been discontinued and abandoned to prevent the water from No. 2 interfering with No. 1 mining, or vice versa.

One of the first steps this company took was a complete outside survey of this newly acquired colliery, locating crop holes, air shafts, slopes and any depressions which apparently had been caused by the settling of the ground, and caving in of the flat workings.

These surveys were plotted, and when the mine map tracings were placed on these surface indications, it was shown that cave holes existed where there were no underground workings. However the line of cave holes very plainly showed the shape of basin No. 1, and again it plainly showed the north cropping of slope No. 2; it therefore was evident that there must have been a discrepancy in the inside surveys. They therefore treated the No. 1 mine independently from No. 2 mine, and placed the tracing of each slope independently to answer the crop holes and their provings. It was found by this that there was a vacant strip of about four hundred and fifty feet opposite the east end of No. 2 workings which was not caused by underground workings, and it remained to be proven whether this hypothetical placing of the two tracings was correct. To accomplish this, a section line was run out and six diamond drill holes put down, which proved that the hypothetical location could be considered correct within a few feet.

The geological survey map published by the State, shows these slopes, Nos. 1 and 2 workings in relative position as represented by the mine tracings of the old Buck Mountain Coal Company.

For this report I enclose a tracing of the Buck Mountain mine map which shows in black outlines the actual position of the No. 1 and No. 2 workings, while the red lines indicate the relative position according to the old Buck Mountain maps. I also enclose a section of the line of the provings to ascertain the correctness of their assumption, which was fully borne out by the developments in No. 2 Buck Mountain tunnel just completed.

They have proven the correctness of the bore holes reported by actually developing certain sections reported by the same drillers. They found them correct and have no reason to suppose that these

should be incorrect, especially as they only indicate certain irregularities consequent to faultings and disturbances identical with those actually developed in strippings.

A small stripping in the extreme east end of the No. 1 basin satisfied the company that not more than 30 per cent. of the coal had been worked in their Buck Mountain workings, the vein running in some places as much as 60 and 80 feet in thickness, therefore, the stripping of the whole old Buck Mountain No. 1 basin is under consideraiton, which would yield about 2,120,000 tons of coal for a removal of about 5,000,000 yards of material.

An examination of the geological survey map will impress upon every one the enormous wealth of coal still remaining in the six Buck Mountain basins, and no attempt has ever been made to question the superior quality of this coal.

A line of water pipes was run from the sand spring in the Buck Mountain valley to the Eckley Water Works, a distance of about one and three fourth miles. This sand spring during the exceedingly dry spell of 1895 flowed at the rate of 600,000 gallons every twenty-four hours, the water simply bubbling out of the ground without the help of a bore hole, therefore the company is justified in hoping that the water question is settled permanently for Drifton and Eckley by this investment.

Two 60 inch flue boilers complete were placed and equipped with Coxe traveling grate, built by the Coxe Iron Manufacturing Company. One pair 21x38 inch hoisting engines built by the same company, and one pair 12x24 inch hoisting engines at the old Buck Mountain workings. Also one fresh water pumping station consisting of two Erie boilers, two pumps, pumping the water from the Buck Mountain sand spring to Porter House Water Works, Eckley.

At the Stockton collieries no special improvements can be reported, except that the old breaker slope known as new No. 3 or No. 7, has been abandoned for transportation and changed into a pump way. The pumps are remodeled and placed eight feet above the gangway level to protect them against a sudden flooding.

Nothing new has been developed at Beaver Meadow, except the pumping out of old slope No. 3, from which the local vein derived the name of "Wharton." It was the first slope which was sunk on this vein, and was named in honor of the president of the coal compand, a Mr. Wharton. It was always considered a very wet slope and was continuously in danger of drowning out, and was abandoned in the "fifties." The quantity of water pumped while the slope was kept free of water to enable the company to complete the survey amounted to 71,000,000 gallons per month. The complete survey of the slope workings was obtained, but the work was hardly finished, when a heavy squeeze took place, carrying in a large area,

which apparently had been held up originally by propping, and finally by the pressure of the water, and when this was removed the props were not sufficiently sound to uphold the roof, and the roof followed. The object of an exact and correct location of the old workings being accomplished, the pumps were withdrawn and the slope was allowed to fill up again. Since the extension of the old Wharton workings of the old slope had been determined upon it was decided to open this Wharton vein in Beaver Meadow slope No. 4, which had so far been worked on the Gamma vein exclusively. A new hoisting engine, Stroh, 17x24 inches was erected on the top of the slope, and a 23 ton locomotive purchased to bring the coal from No. 4 slope to the Beaver Meadow breaker. This colliery suffered a great deal for want of fresh water and wash water during the summer and fall of 1895.

Tomhicken colliery was idle during 1895 with the exception of one month when stock coal obtained from narrow work and "proving" during the previous year was run through the breaker. All work done at Tomhicken is merely a proving of the numerous faults, "basins" and "saddles" extending through that property.

Derringer Colliery.—A slope was sunk to the third lift and gang ways started. A rope drill hole was put down previous to sinking the underground shaft, by which the coal from the new level will be hoisted up to the present working level. The steam plant has been remodelled by the installation of Coxe's mechanical stoker and it is being operated successfully.

Gowen Slope No. 4.—A tributary opening to Derringer has also been further developed by an underground slope sunk two lifts below the present workings level. A very good body of coal has so been opened, and the hoisting from this slope has been almost doubled as compared with last year.

A new mine pump was placed, size 20x10x24 inches; built by the Coxe Iron Manufacturing Company, pumping from the lower level to the surface.

Gowen No. 1.—A 20 foot diameter Vulcan fan was placed, which was built by the Vulcan Iron Works of Wilkes-Barre.

Lehigh Valley Coal Company.

Hazleton No. 1.—During the period of idleness necessitated by the mine fire, the breaker was enlarged and the machinery re-arranged. The old picking head was torn out and a movable platform 4 feet 6 inches wide by 28 feet long placed in position for the more convenient separation of the bone and rock. Additional screens and jigs as well as conveying machinery for the automatic handling of lip screenings and condemned coal were introduced.

A special feature was the use of separate rolls for the grinding down of the unsalable bone for boiler use, thus affording opportunity for the shipment of an increased percentage of Rice Coal.

The situation of the old boiler plant interfered with the further development of the west strippings of the Mammoth vein towards the slope, and it was determined to abandon it and erect a new plant off the outcrop of the Mammoth vein. Work was commenced in May, 1895, and the new plant was put in operation on January 1, 1896.

The new boilers of 1,500 horse power are of the Babcock and Wilcox water tubes type, especially designed, with low front, large steam drums and extra grate surface for burning bone grade fuel. They are arranged in three batteries of 500 horse power each. In the flue behind the boilers is placed an economizer or water heater, designed by the American Fuel Economizer Company, and containing 3,000 square feet of heating surface.

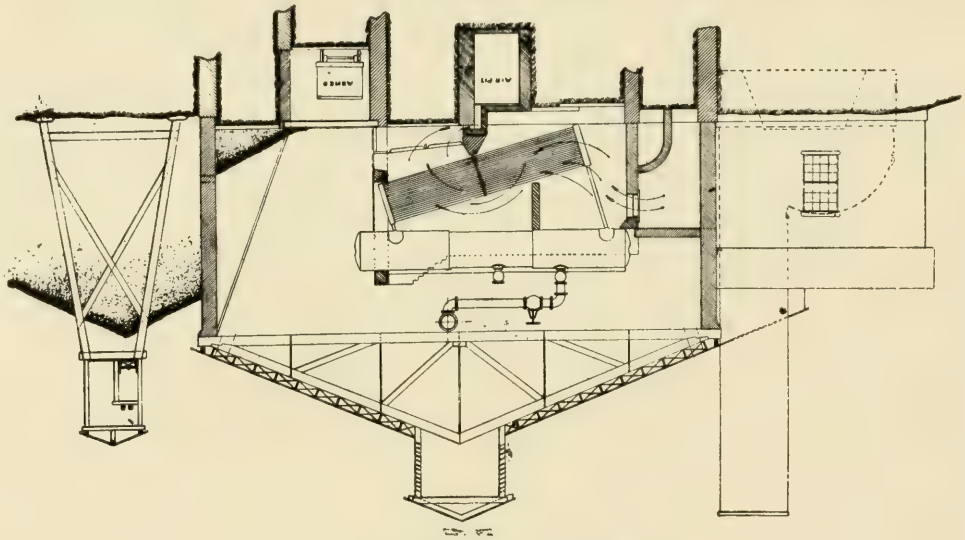
A novel combination of the blowing and induced draft system was introduced, by which sufficient draft for rapid combustion is secured, without excessive water gauge, and the resulting losses by leakage. Two fans are used for this purpose; one a blowing fan, and the other a suction fan, placed at the foot of the stack. Each fan has sufficient capacity to run the plant under ordinary circumstances.

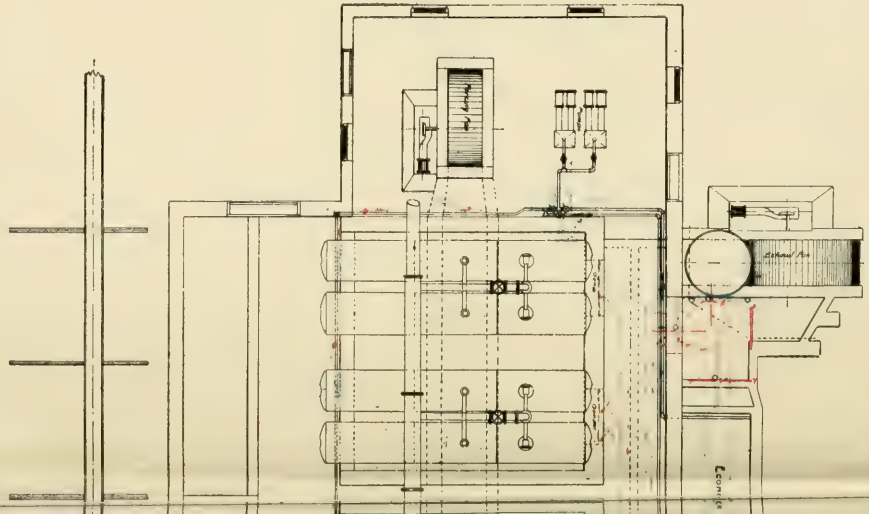
The economizer and suction fan may both be thrown out of service if desired, and the plant operated with the blowing fan alone. The direction taken by the flue gases as well as the position in which the dampers are placed in either case, is shown on the accompanying plan. The blue arrows show the course of the air when both fans are in operation and the red arrows show the course when the economizer and suction fan are thrown out of service. The course of the feed water and position of the valves in the water line are also shown in red and blue. The temperature of the gases leaving the stack is reduced to three hundred degrees and the temperature of the feed is raised to about 170 degrees by the use of the economizer by this system.

This new plant has entirely displaced the old plant of 30 cylinder boilers, and four Hazleton boilers at No. 1 slope.

The boiler plants at the No. 1 bore hole and No. 7 slope will also be shortly discontinued, and steam furnished from the new plant. The new plant effects a saving of between eight and nine thousand dollars per year in attendance as well as an economy of 50 per cent. in the use of fuel.

Hazleton No. 5.—A new plant of eight return tubular boilers was introduced and the old cylinder boilers thrown out of use. The new boilers were built by the Vulcan Iron Works, Wilkes-Barre, Pa.



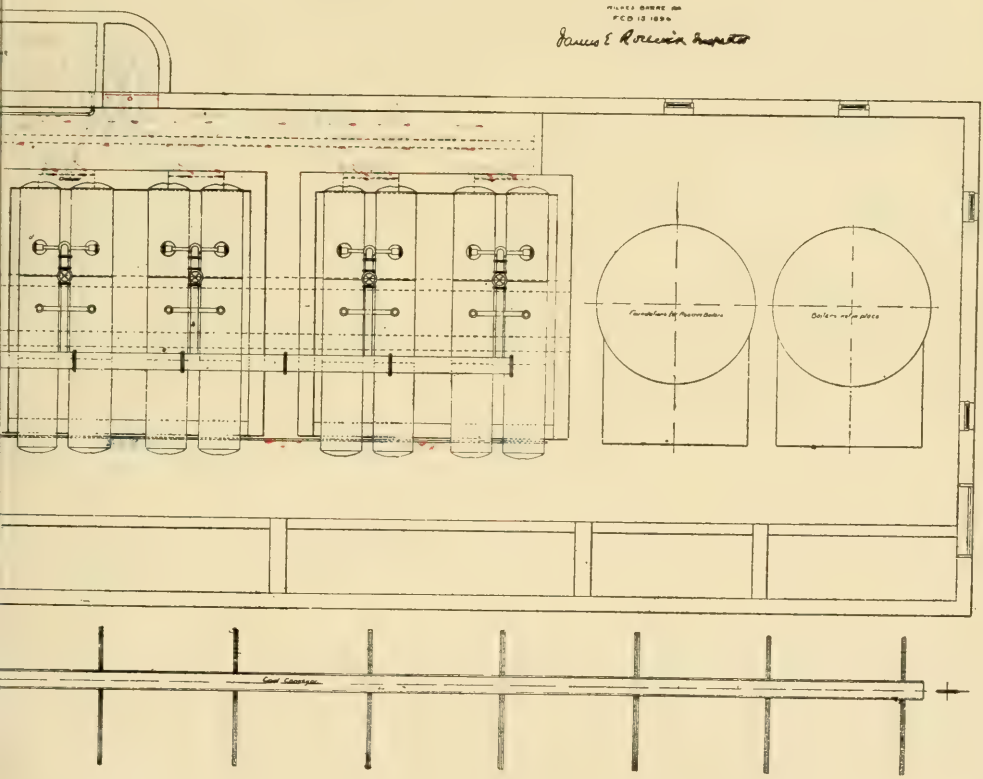


PLAN AND SECTION
OF
BOILER PLANT
HAZLETON No. 1 COLLIERY
LEHIGH VALLEY COAL CO
H

SCALE 3/16" = 1'

OFFICE MECH ENG
MINES BARRE PA
FEB 12 1896

James E. Rockwell Inspector



The boilers are each of 150 rated horse power and draft is secured with Eynon Evans steam jet blowers.

G. B. Markle & Co.

Jeddo No. 5.—A plane has been constructed on the north side of basin, south pitch, and a gangway is being driven west from this plane.

An airway was opened to the surface on anticlinal at south side of basin.

A tunnel is now being driven from lower lift west through roll of upheaval from Buck Mountain vein to Buck Mountain vein.

A tunnel is being driven from second lift gangway south to connect with south basin.

A tunnel is now being driven from second lift gangway south to connect with south side second basin.

A plant with Westinghouse system of electric lighting has been installed at No. 5 colliery from which point light is furnished to all the breakers as well as the offices and stores at Jeddo.

They have removed the Cameron pumps at No. 5 and in their places have set up two 6 inch Markle pumps, one on the first lift and one on the bottom.

Also a new pea coal screen has been placed in No. 5 breaker.

Jeddo No. 4.—Seven short tunnels have been driven from the Mammoth to the Wharton vein.

An engine house has been built and a pair of 16x24 inch Geared link motion hoisting engines set up for the purpose of hoisting coal coming from the Ebervale mine, which is to be transported over the surface from Ebervale to this breaker.

About 539 yards of track has been laid from this breaker to connect with the track from Ebervale over which it is intended to transport the coal.

New carpenter and blacksmith shops have also been erected.

Four "Stroh" jigs have been added to the breaker plant.

Cameron pump used as a breaker pump has been taken out and in place thereof a 6 inch Markle pump has been put in position to throw water on the breaker.

Settling tanks have been placed in both No. 4 and No. 5 breakers.

Highland No. 2.—A 500 horse power Climax boiler has been erected for utilizing waste gases for fuel.

Two Stroh jigs have been added to the breaker plant.

A tunnel is now being driven north from Wharton to Wharton veins, and a locomotive has been added to the stripping plant.

Ebervale.—A 10 foot fan has been erected so as to provide sufficient ventilation to open up parts of the old workings.

An engine house has been built, and a pair of hoisting engines placed in position to hoist coal from Ebervale slope.

Lehigh Coal and Navigation Company.

No. 1.—Two batteries of Stirling water tube boilers 500 horse power, with all necessary connections have been erected at No. 1 shaft.

No. 4.—The work of developing the new fourth lift on the Mammoth vein has been rapidly carried on. A slope in line of present main hoisting slope has been driven ready to connect, which will increase the output at this colliery.

An artesian well is being sunk to supply the boilers with pure water.

No. 5.—A tunnel has been started from the third lift of No. 4 north to the Primrose vein to develope a new lift for this colliery.

No. 6.—A balance plane has been driven from present tunnel level or second lift below water level, to work the old No. 6 slope level on the Mammoth vein.

No. 9.—A 16x48x38 inch pump has been erected at Panther Creek to pump water to the fire in the Mammoth vein at Summit Hill. A track has been laid, pockets built and drill holes sunk preparatory to undertaking the work of extinguishing the fire by slushing the old workings with culm.

Screen Building.—Two batteries of Stirling boilers of 500 horse power, have been added to the boiler plant at this place. A new dirt plane and engines giving a lift of seventy feet vertically over old banks has been erected.

Upper Lehigh Coal Company.

During the past year east of the water works a well 7x9 feet was sunk 100 feet deep, in which a lifting pump has been placed, size 6½x36 inches, increasing the water supply to the extent of 27,000 gallons per day during the drought.

In the rear of No. 2 boiler house a Climax boiler of 400 horse power has been placed, which utilized the waste heat from the twelve cylinder boilers, and which enables them to supply steam to No. 9 slope through a line of 3 inch pipe 1,800 feet long. The results from this boiler are very gratifying to the company.

From the strippings at No. 5 slope 125,513 cubic yards of earth have been removed. In removing the creek channel from the outcrop at No. 7 slope it was necessary to build a four foot flume 1,000 feet long through the dirt bank at No. 2, and a channel 4,200 feet in length was made to carry the water south of the outcrop at No. 8 slope.

Calvin Pardee & Co.

Lattimer No. 2.—A large flush tank has been erected at the top of the slope as a precautionary measure to be used only in case of a fire in slope. Flush tanks have proven of great value at many of the mine fires in steep slopes.

At Hollywood a cable way hoist has been erected 800 feet in length for the purpose of taking off the surface and from above the slope pillars. The slope has been abandoned and a plane built about 300 feet west of slope for the purpose of conveying the coal from the pillars to the breaker.

At Harwood a slope was driven to the surface in the Buck Mountain vein, the distance being 185 feet. This slope is about 1,100 feet west of breaker, and the coal is run to the breaker by gravity, and the empty cars are hauled back by mules.

In No. 4 slope a tunnel 100 feet in length was driven from the Parlor to the Wharton vein. Also a short tunnel 100 feet in length from the Gamma to the Buck Mountain vein.

In No. 5 slope a tunnel 120 feet in length was driven from the Wharton to the Gamma on the south side of the basin.

A tunnel is being driven from the Gamma to the Buck Mountain; a tunnel has also been started on the north side from the Gamma to the Buck Mountain vein.

A conveyor line 450 feet long has been erected to convey rice coal from the breaker to No. 2 boiler house. This line is also used to stock the rice coal, and to supply the boiler house at breaker. This line is the motion chain pattern made by the Link Belt Engineering Company of Philadelphia, and is said to be the third line of this kind that has been erected.

Lehigh and Wilkes-Barre Coal Company.

A new slope called No. 16 has been sunk across the pitch at an angle of about 35 degrees in the Buck Mountain vein. The length of the slope is 183 yards. An airway of suitable area has been opened paralleling this slope at the top of which a 12 foot ventilating fan has been erected. At the top of the slope a pair of engines of ample dimensions have been placed.

Two hoisting planes, one east and one west of No. 1 stripping have been erected. A long stretch of grading and laying of track became necessary to connect No. 16 slope and the hoisting planes with the main road to breaker.

Mine Maps.

In my annual report for the year 1882, I endeavored to call the attention of operators and superintendents of coal mines to the great

need of improvements in mine maps. A mine map that has only a few elevations on it, is of little or no value.

The anthracite mine laws of Pennsylvania have been twice revised since then. In 1885 and 1891, the laws of both years were indentical on this subject, and are plain and clear enough in their provisions for any willing observer, besides being comprehensive enough if obeyed to provide for the safety of employes from peril of water or gas in old mines which adjoin each other.

For some time I have had doubts of the accuracy and completeness of a few of the mine maps of this district.

Knowing as I do the great importance of having accurate and complete maps in all mining districts, but much more so in districts like this, the Fifth, where so many mines have been partly exhausted and abandoned for a period, and allowed to fill with water while adjoining mines are being worked, the safety of the employes depending entirely on a barrier pillar of sometimes unknown width.

While I doubted the accuracy and completeness of but few of the mine maps, yet I decided to send the following circular letter to each operator and superintendent, as they know as well as I do that the lives of many of the employes in some of the mines of this district depend entirely on the accuracy, thoroughness and completeness of the mine maps.

Fifth Anthracite District,
Hazleton, Pa., December 5, 1895.

To Operators and Superintendents:

Gentlemen: I beg to call your special attention to the following brief extracts from the anthracite mine law of 1891, viz:

ARTICLE III.

"Section 1. The.....operator or superintendent of every coal mine shall make or cause to be made an accurate map..... of the workings or excavations of such coal mine..... which map..... shall exhibit the workings or excavations in each and every seam of coal, and the tunnels and passages connecting with such workings. It shall also state in degrees the general inclination of the strata, and shall also state the tidal elevations of the bottom of each shaft, slope, tunnel and gangway, and of any other point in the mine or on the surface, when such elevation shall be deemed necessary by the Inspector.

"The map shall show the number of the last survey station, and date of each survey on the gangways or most advanced workings.

"It shall also accurately show the boundary lines of the land of the said coal mine and the proximity thereto, and in case any mine con-

tains water dammed up in any part thereof, it shall be the duty of the operator or superintendent to cause the true location of said dam to be accurately marked on said map together with the tidal elevation, inclination of the strata and area of said workings containing water.

"A true copy of which map the said operator or superintendent shall deposit with the Inspector.

"One copy of said map shall be kept at the colliery.

"Section 2. The said operator or superintendent shall as often as once every six months place or cause to be placed on the said Inspector's map, the extensions made in such coal mine during the preceding six months."

It is deemed necessary by the Inspector, that each map shall also show the tidal elevations of the top of each shaft and slope, with intermediate lifts thereof; of the bottom and top of each plane and of the bottom and top of each run.

On and after January 1, 1896, the Inspector will insist on strict compliance with this circular letter.

Please see sections 3, 4, 5, 6, 7, 8, 9 and 10 of article III, of said law.

Very truly,

J. E. RODERICK,
Inspector of Mines.

High Explosives.

I think I can safely say, that there is more dynamite used in this district than in any district in the State, for the reason that there is more coal mined by the stripping method here than in any other district.

During the year 1894 and 1895, 1,006,758 pounds and 977,043 pounds respectively were used.

By looking over the Inspectors' reports for this district for late years, including the report for 1895, it can be seen that a very large percentage of the accidents result from the explosion of dynamite in some form.

I have kept a close watch on these accidents for years and have come to the conclusion that they can be accounted for in several ways: First, to the ignorance of the persons handling the dynamite; to carelessness and recklessness of experienced persons who are handling it; to the failure of the operators, superintendents or foremen to do their part by complying with the mine law, and last but not by any means least is the failure of the manufacturers of dynamite to produce powder of uniform strength and reliability, as sometimes it takes a quintisple cap to explode, while at other times it explodes without any cap.

Knowing these facts, I sent to each operator and superintendent a copy of the following circular letter and I believe that a copy was also sent by the operators to each manufacturer.

Fifth Anthracite District,
Hazleton, Pa., November 1, 1895.

To Operators and Superintendents:

Gentlemen: I desire to call your special attention to rule 29 of general rules of the anthracite mine law of Pennsylvania for 1891, viz:

"When high explosives other than gunpowder are used in any mine, the manner of storing, keeping, moving, changing and firing, or in any manner using said explosives shall be in accordance with special rules as furnished by the manufacturers of the same.

"The said rules shall be endorsed with his or their official signature, and shall be approved by the owner, operator or superintendent of the mine in which such explosives are used."

Kindly comply with the provisions of above said rule, and send me a copy of your special rules on or before January 1, 1896.

Very truly,
JAMES E. RODERICK,
Inspector of Mines.

The companies of this district have complied with the law as per the circular letter, and quite a number of them have provided their employes with suitable buildings heated by steam where the temperature is never allowed to go above 80 degrees. Others have furnished thawing kettles as per the instructions of manufacturers whereby the dynamite is thawed by heat coming from hot water.

At Lattimer, Calvin Pardee has erected a magazine heated by steam, where the dynamite for all of his strippings is kept thawed while the quantity needed for blasting at the several places is taken out in thawing kettles and kept in condition as directed above by the heat from the water.

The following rules are the most complete and comprehensive of any rules submitted. I therefore send them to be included in my report, as they may be the means of calling the attention of the people interested in mining to this important question and thus be the means of saving life.

RULES.

RULES FOR STORING, KEEPING, MOVING, THAWING, CHARGING, FIRING, ETC., DYNAMITE MANUFACTURED BY THE ATLANTIC DYNAMITE COMPANY, OF NEW JERSEY, IN ACCORDANCE WITH ARTICLE XII, RULE 29, OF THE ANTHRACITE MINE LAW OF PENNSYLVANIA, APPROVED 1891.

Storing and Keeping.

The dynamite should be stored in a building isolated as far as possible from other buildings and traffic, and when possible the building should be located on high, dry ground and be well ventilated.

Caps and electric exploders or fuses must not under any condition be stored in the same building with the powder. A separate building should be provided for that purpose, and they should always be kept apart until needed for preparing the charge. For the same reason powder and caps should never be kept in the same box.

Moving (Transporting).

The dynamite can be hauled in wagons, railway trains, mine cars or similar vehicles, the same as other merchandise, care being exercised that percussion caps, exploders, fulminators, friction matches or any other article of like nature be not loaded in the same wagon, car or similar vehicle. Too much care cannot be exercised in this particular detail.

Thawing Powder.

All nitro-glycerine compounds freeze and become hard at about 42 degrees Fahrenheit. In this condition they will not explode.

First. When large quantites of powder are to be used, a separate building for thawing the powder should be erected and fitted with a small steam radiator. Use only exhaust steam for heating same, keeping temperature of the room about 80 degrees Fahrenheit. In the part of the room farthest away from the radiator put up wooden rack, taking the cartridges from the boxes and laying them on the rack to thaw. Have the house banked around with earth or better, with fresh horse manure.

Second. When but small quantities are required to be thawed, a "thawing kettle" may be used, being two water-tight kettles, one smaller than the other, the cartridges to be placed in the smaller kettle and the space between the two kettles filled with hot water of from 130 to 140 Fahrenheit, the kettle being fitted with a cover to retain the heat. Under no conditions, however, should the kettle

be placed over the fire to heat the water. When more heat is required, empty the cold water and fill with more hot.

The Atlantic Dynamite Company can furnish these kettles for thawing cartridges.

Third. If a thawing kettle is not obtainable, heat sand to a temperature not hotter than the naked hand can be borne in. Put the heated sand in a wooden box and place the cartridges in the hot sand, and cover the box to retain the heat.

Fourth. Under no condition attempt to thaw powder by putting it in hot water or exposing it to the direct action of steam. Keep the powder dry. Water will always damage it if it is exposed to its influence for any length of time.

Precautions.

Under no condition should powder be placed on hot steam pipes or steam boilers; nor on, nor in a hot stove.

Nor on any hot metal.

Do not expose it to radiated heat from a fire or hot stove.

Keep it away from the blacksmith's forge and shop.

Never roast, toast, or bake it in any way.

Under no conditions fire into dynamite with rifle or pistol either in or out of magazine.

Any deviation from the above directions may result in serious explosion and loss of life.

Preparing the Charge.

Cut a piece of safety fuse to the right length and carefully insert the fresh cut end in a blasting cap. See that the cap is free from any particles of sawdust used in packing them before inserting the fuse. Press the fuse gently into the cap as far as it will go. Crimp the open end of the cap tightly about the fuse with a pair of cap nippers, but under no condition disturb the fulminate or filling in the cap. Then open one end of the cartridge of powder carefully, without cutting or tearing the paper, and with a sharpened lead pencil or pointed wooden stick make a hole in the powder, insert the capped end of the fuse, being careful to see that at least one-fourth of an inch of the cap remains out of the powder. Then draw the paper closely about the fuse and tie it fast with a strong cord.

Never allow smoking or fire of any description near the powder, as it will burn rapidly if ignited, and caps incautiously left near by might be fired, resulting in an accidental explosion.

Charging the Drill Hole.

Having prepared the cartridge as above described (being sure beforehand that none of the cartridges to be used are frozen or even

chilled), push the cartridges to the bottom of the drill hole with wooden tamping stick, pressing them down hard so that they will fill the drill hole. Where only one or a part of one cartridge is used, which will contain the capped fuse, don't attempt to press the cartridge down hard, as in so doing the cap may be disarranged, thereby causing miss fire.

Tamping.

Having placed the required quantity of powder in the hole, cover the charge with about six inches of loose tamping, press it down firmly with a wooden tamping stick, after which the hole may be tamped to the top by ramming the tamping down hard. Under no conditions use an iron or metal tamping bar, a wooden stick being all that is required.

Miss Fires.

In case of miss fires no attempt must be made to remove the tamping or draw the charge. A new hole should be drilled. (See mine law.)

If the foregoing instructions are carefully followed, excellent results with our powder will ensue and accidents will not take place.

(Signed) THE ATLANTIC DYNAMITE Co. OF N. J.

(Signed) By JOHN C. SCHRABER.
General Agent.

Approved, ...Sup't.

.....

Mine Fires.

Early in the morning of January 25, 1895, a fire broke out near the "water level" in Hazleton No. 1 slope of the Lehigh Valley Coal Company, which necessitated one of the most protracted and stubborn struggles to subdue in the history of anthracite mining.

This is the old "Hazle Mine" slope in the Mammoth vein, and was the first to be opened in the neighborhood of Hazleton, about the year 1843 and was sunk to a depth of only 250 feet. Shortly afterward it came into the possession of A. Pardee & Co., who widened and double-tracked the slope and extended it to the axis of the basin, a length of about 2,200 feet, and developed the colliery practically as it stood at the time of the fire, operating it continuously until December, 1894, when, together with the other collieries of this firm upon the property of the Lehigh Valley Coal Company, it passed into the hands of the Lehigh Valley Coal Company, who operate it at the present time.

In the early days of mining, when the science of working and preparing anthracite coal was in its infancy and the knowledge neces-

sarily limited and experimental, mining at this colliery was at first confined exclusively to the "Seven Foot" or middle bench of the vein which was all pure coal, as scarcely any attempt was made at preparation, and only the large lumps of pure coal were sent to market.

The breasts were driven wide, frequently a distance of fifty feet, with intervening pillars averaging from 10 to 15 feet; afterwards draw holes were driven from the gangway to the "Six Foot Bench" overhead, and this in turn worked, without any regard to the relative position of the breasts and pillars underneath and very frequently a "six foot" breast would be driven over a "seven foot" pillar, apparently with as much confidence as if there had been a rock interval of one hundred feet instead of only about seven feet of coal and slate, constituting the "benches." Complete collapse was the result. At a still later period the "four foot," or bottom bench was also partially worked, thus mining the vein which to-day is worked as a whole, as three independent splits although separated from each other by only a couple of feet of slate or bone and coal. It was into these old workings, robbed and exhausted that the fire spread from the slope and the struggle so prolonged.

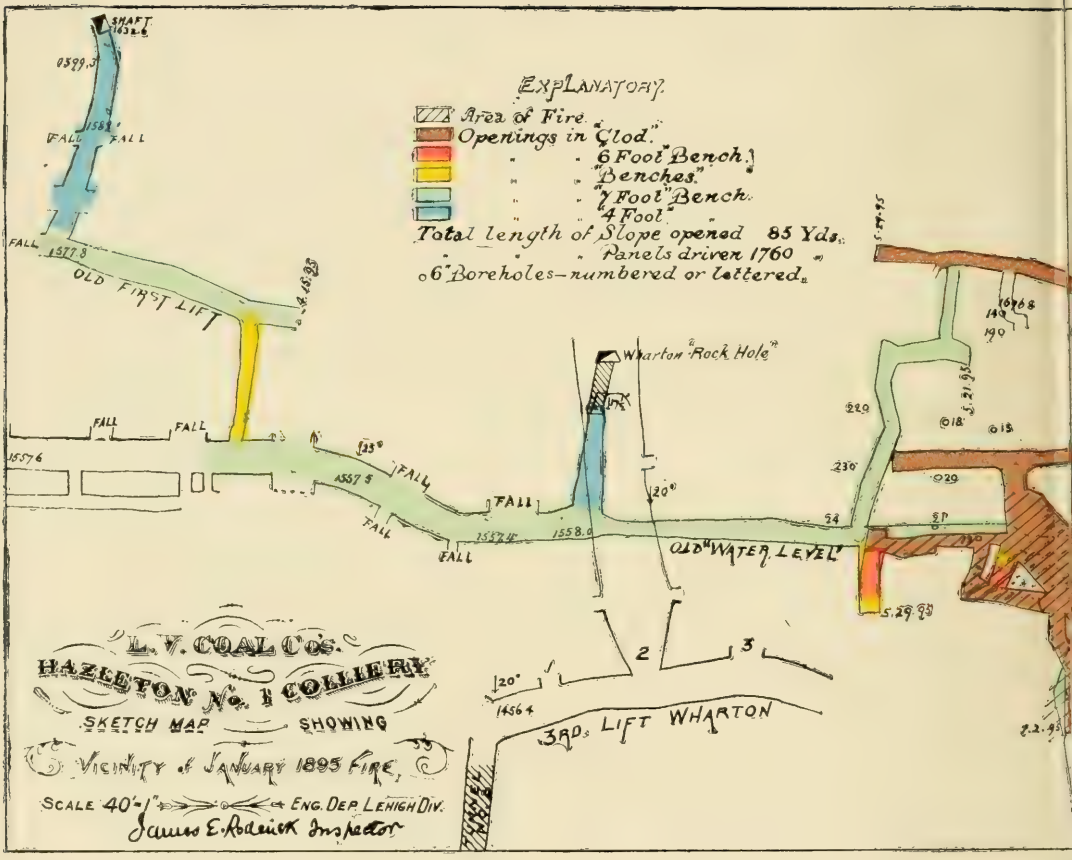
A typical section of this vein would show:

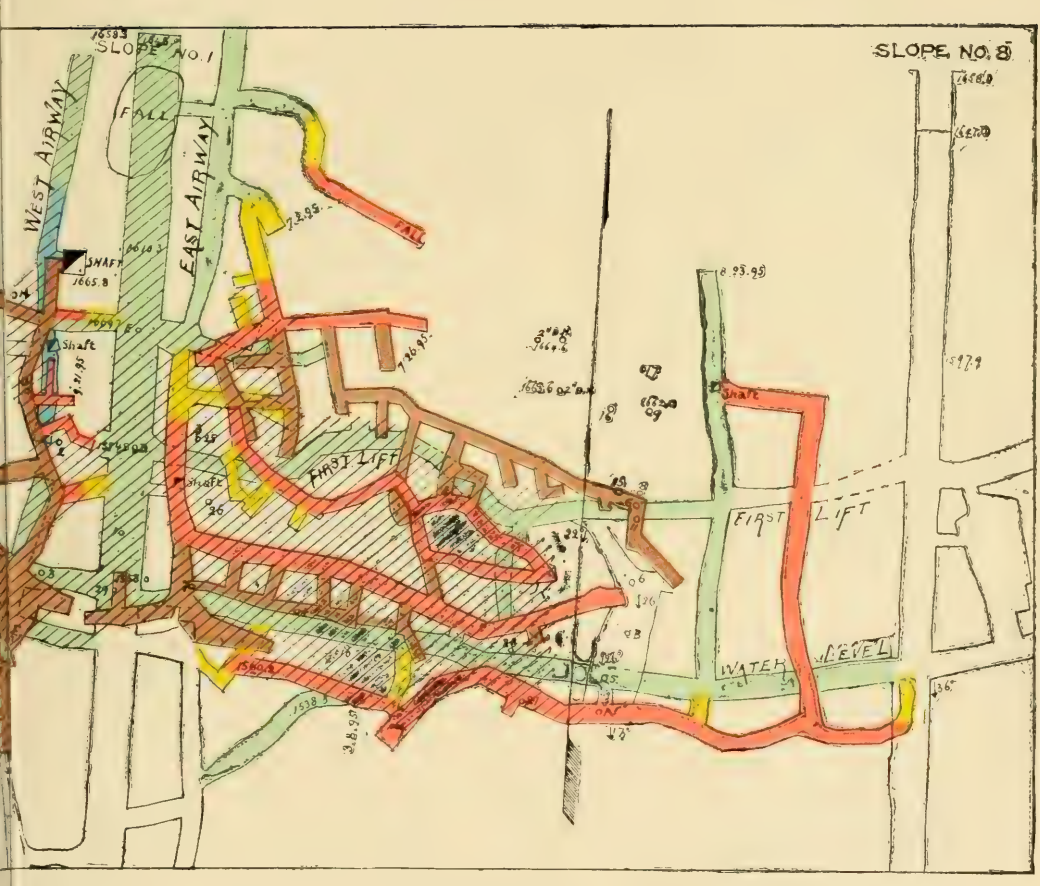
Coal, bone and slate, 7 feet 0 inches, locally known as "clod;" coal, 6 feet 0 inches, locally known as "six foot;" coal, bone and slate, 7 feet 0 inches, locally known as "benches;" coal, 7 feet 0 inches, locally known as "seven foot;" slate, 2 feet 0 inches; coal, 5 feet 0 inches, locally known as "four foot. Total, 34 feet 0 inches.

These early workings comprised the "first lift" and "water level" gangways, especially divided into lifts of about 120 feet each; their exact position, however, was very much in doubt, having been surveyed years ago, and before the science of mining engineering had reached the perfection of to-day, and when surveys, if made at all, were crude and incorrect, and were confined exclusively to the gangways. The only available map, made fifty years ago, although good for its days, was incomplete and full of inaccuracies.

The slope itself known as No. 1 was used as the main approach to the breaker, and was supplemented by another No. 8, 300 feet to the east, which had been driven through old breasts to the third lift and was used to hoist the Mammoth stripping and third lift Wharton coal. On the south side of the basin was a third slope called No. 7, used as a tender slope to No. 1 for men, timber and supplies.

The ventilation of this part of the mines was effected by means of a twenty-foot exhaust fan located at the mouth of the west airway at No. 1 slope, which was fed by two splits meeting at the foot of the Wharton rock hole, one coming up from the lower levels and


SHAFT
1635.6
1589.3
1588.1
FALL
FALL
FALL
1577.8
OLD FIRST LIFT
1565.8
FALL
FALL
1557.6
135°
1557.8
FALL
FALL
FALL
1557.4
1558.6
FALL
Wharton "Rock Hole"
20°
OLD "WATER LEVEL"
EXPLANATORY.
Area of Fire.
Openings in "Clod."
" " 6 Foot "Bench."
" " "Benches."
" " 7 Foot "Bench."
" " 4 Foot "
Total length of Slope opened 85 Yds.
" " Panels driven 1760 "
6" Boreholes—numbered or lettered.
S.4.35
1696.8
140
190
S.21.95
220
230
S.29.95
L. V. COAL Co's.
HAZLETON No. 1 COLLIERY
SKETCH MAP SHOWING
VICINITY of JANUARY 1895 FIRE.
SCALE 40'=1" ENG. DEP. LEHIGH DIV.
James E. Roderick Inspector
20°
1456.4
2
3
3RD. LIFT WHARTON
S.2.95


SLOPE NO. 1
SLOPE NO. 8
WEST AIRWAY
EAST AIRWAY
FALL
SHAFT
1665.8
Shaft
EAST LIFT
FIRST LIFT
WATER LEVEL

the other from the third lift Wharton workings, and united, they passed up the rock hole, out through the old "water level" to the airway and thence to the fan. No. 8 slope was the intake for the second split, while No. 1 slope was a natural upcast caused by the heated condition of the air from the steam pipe along its whole length. In the field at West Hazleton was a 15 foot force fan known as the "Wharton Fan," which at the time was not in use.

At each side and paralleling No. 1 slope and separated from it by pillars of from 15 to 20 feet in thickness, are two airways, the west, driven through an old breast, used as a return air-course to the fan and as a pumpway, and the east as a steam-pipe-way as far as the old pump room below the first lift, where the pipe crossed the slope diagonally into the west airway at the "water level" and thence down to the third lift and lower pumps. It was at the point where the steam line crossed the slope that the fire is supposed to have originated.

Along No. 1 slope from the surface to the "water level" the thin slope pillars and the pillars immediately adjoining the airways alone remained; east and west of this the ground had been robbed time and again, until now the only available coal from this area is that which can be obtained from stripping alone. The broken condition of the ground adjoining the airways necessitated heavy timber, lined closely with plank, and which had become thoroughly dried by the hot air coming up the slope from the steam pipe, and needed only a spark to set it ablaze, which might be supplied by the contact of the charred wood lining against the steam pipe, or the naked light of some person.

At the breaking out of the fire the only men known to have been in the mines were the pump-runners at the lower lifts and it was first discovered about 5 o'clock in the morning by flames issuing in dense volumes from the slope mouth, which soon ignited the plane connecting the slope with the breaker. To save the breaker, several bents of the trestle were quickly torn down, thus cutting off the fire from that structure. The alarm brought the city fire department promptly to the ground, and in a short time two streams were playing upon the slope mouth and fan, while a third hose was being run into the mines.

In the meantime an exploring party had hastened down No. 8 slope to the third level and up No. 1 slope to a point about 15 feet below the "water level" where the slope and pumpway were found blocked by a mass of burning wood and coal from the fallen roof and timbers. Temporary batteries were at once built across both places to prevent the hot coal from rushing down upon the firemen, who were now ready to turn water upon the fire.

An attempt to start up the third lift pump to play water upon the fire revealed the discouraging fact that the steam pipe had been broken somewhere in the fire, possibly by the falling roof and the pump was useless. Steps were at once taken to lay a four inch steam line down No. 8 slope to connect with this pump.

A more unfavorable place for a fire to occur could not have been conceived and it was only too evident that to prevent the fire, which had now spread to the airways, from extending into the robbed portions, an energetic and concerted plan of action should be immediately adopted.

The construction of a large tank having a capacity of 10,000 gallons was at once begun upon the remaining part of the trestle at the head of the slope, with the intention of filling it as rapidly as possible, and flushing the water in full volume alternately down the slope and airways to beat back and extinguish the fire by the dash of such a large volume of water, a system which was successfully used against the Cranberry fire where the pitch was heavy and the slope remained intact; but here, shortly after the flushing was begun, the slope and west airway mouths caved in and prevented the rush of water so necessary to this scheme; it had, however, the effect of forcing back and holding the fire near the first lift.

Three surface lines of four inch pipe for water were also started and completed from the different mains of the city water system, two running to the flushing tank and one down No. 8 slope and into the Wharton rock hole, with the intention of running up that hole and out the old "water level" to fight the fire from that side. A party explored this ground during the morning and advanced about 60 feet into the old gangway, but were driven back by the smoke. When the pipe men had reached the rock hole their further progress was impeded by a solid wall of gas. The gas would burn with a sluggish flame, but would not explode, excepting when the carbon dioxide was taken from it, when it became violently explosive. All attempt at removing it were ineffectual even to driving it over the fire with all the force of the fan, after first removing the men from the mines, and it remained stationary at the head of the rock hole for at least three months after this time.

The work of directly fighting the fire was being energetically carried on. The other collieries of the company in the neighborhood were called upon for men, who, with those of the colliery itself, constituted a large and efficient force, which was divided into three shifts of eight hours each and placed under the immediate charge of experienced superintendents and foremen; among these foremen, were Mr. James Heaton, inside foreman at Packer No. 4; Mr. John J. Williams, mine Inspector for the company, and Mr. William Leckie and

Mr. George H. Tench, inside and outside superintendents, respectively, of the York Farm and Blackwood collieries who had just passed through a severe experience at the Packer No. 5 mine fire. Others were Mr. David MacFarlane, superintendent of the Jeanesville collieries; Mr. Caleb Williams and Mr. Benjamin Reese, inside superintendents of the Hazleton collieries, and the colliery foreman and fire bosses.

The plan of action adopted and put into immediate effect was the same as that so successfully carried out at the Packer No. 5 fire, namely, the "direct method," modified to some extent to suit the peculiar condition of things at this colliery.

Steam having been carried to the third lift pump, a length of column pipe near the fire was removed, the end of the line to the pump blanked and the pipe tapped for 1½ inch hose connection; afterwards a special pipe was made with 6 inch branches to permit any sufficient number of these 1½ inch connections to be made. Several 1½ inch pipe of variable lengths and with their ends drawn down to a ¾ inch nozzle would be forced into the red hot fire, the hose connected and after the men had been withdrawn, the water would be turned on until the coal had been sufficiently cooled to permit handling and removal out of No. 8 slope to the surface; fresh fire would then be exposed, which in turn would be treated in like manner.

It was known from occasional glimpses afforded through small openings made during the drawing, that the slope and west airway were still standing beyond the falls at which the men were working, and it was hoped that after each drawing, they would be able soon to advance and extinguish the fire in these places and then hasten after the fire, which was gradually eating its way through the crushed water level gangways.

Three points of attack upon the fire were presented, in the slope and east and west airways, and they were conducted simultaneously in attempting to exhaust the falls, which were one mass of fire and had closed these places just below the "water level." After several days of ineffectual attempts to make an opening, large cracks appeared upon the surface over the area being exhausted, and it was found that top rock was being drawn from below indicating only too clearly that a continuation of fighting in this manner would result only in drawing in the surface. The plan was accordingly modified to forepoling and timbering through the burning debris, and removing only sufficient of it to accommodate the timber.

An early examination revealed a cross hole from the east airway to the old water level gangway in the "six foot" closed and on fire. Work was instantly begun to re-open this gangway and out-run the

fire, if possible. Progress was necessarily slow, since, notwithstanding that four streams of water were constantly playing upon it, the fire would come down and consume the forepoles. One week was spent on a single set of timber. About 20 feet of this gangway had been re-opened when the timber began to sink, disclosing an opening underneath, all on fire, which checked its progress in this direction. This hole afterward proved to be one of the old draw-holes for the "seven foot," although at the time it was thought to be a "seven foot" breast from a lower level. A slant heading and drill holes from it, driven from the east airway to head off the fire, proved a solid chain pillar below the "water level."

While at this particular work, during the early stages of the fire, there was no unusual suffering from deleterious gases, yet the heat was intense and the men could work in relays only of about fifteen minutes duration. The water from the hose and the flushing tank passing through the fire, would return down the slope and pumpway steaming hot, only to be sent back again by the third lift pump, vaporizing the fresh air in which the men worked, until at times it was impossible to distinguish objects more than twenty feet away. The high temperature of the water rendered the free sulphuric acid which it contained much more destructive than is the case at the ordinary temperature, and its action was very severe on the pipes and fittings, which would last only three or four days and required a regular force of machinists on each shift for their constant renewal.

The night following the breaking out of the fire some of the machinists who were laying the 4 inch steam pipe down No. 8 slope were overcome by the carbonic oxide oozing out of the broken ribs of the slope. The news of this reaching the men at the fire caused a stampede among them for the surface, although they were themselves working in good air and were perfectly safe. To prevent a recurrence of this, and to inspire confidence in the men who were working at the fire, an 8 foot force fan was placed at the mouth of No. 8 slope, and a box, made air tight by battens and clay and of sufficient size for men to travel through comfortably, was constructed from this fan down No. 8 slope and in to No. 1 slope along the third level, thus affording an easily accessible and sure means of retreat through fresh air to the surface in case of accident. Double doors were erected at the foot of No. 8 slope, and the Wharton fan started up, which gave another means of escape. In addition to these two, there was still a third way of retreat through fresh air—down No. 1 slope and out No. 7. The air to the men fighting the fire came from the Wharton and No. 8 force fans, passed up the east airway, crossed over into the pumpway, down to the third lift and thence out to the strippings.

To play water at the same time upon the fire in the openings discovered in the west airway and slope, 6 inch drill holes were put down from the surface, one over the slope, two over the west airway and a fourth over the fire in the broken ground above the men, reopening the east "six foot" water level gangway. Into these holes 2 inch pipe was inserted with a nozzled elbow at the end, and so arranged that the pipe could be raised or lowered at will and the stream directed to any point desirable.

In order to confine the fire within certain limits in case it should require a prolonged struggle to subdue, a line of 6 inch holes from 10 to 15 feet apart and extending from the "water level" to the outcrop, were drilled about 200 feet east of the slope, at the nearest point most likely to strike openings or broken ground.

These holes were immediately filled with silt culm washed through a quarter inch mesh with water, which formed what proved to be an impregnable barrier to the advance of the fire in that direction. The line of holes for the same purpose west of the slope was about 100 feet away, but was not as satisfactory as the one east, because of the inability to strike the old gangways, owing to errors in location, and to supplement this barrier, an attempt was made to reopen the crop-fall in the stripping about 450 feet west of the slope with the purpose of running down ashes and water for a second barrier. The heated carbonic acid gas arising from this hole made it impossible to accomplish anything here, as shift after shift would be overcome by the gas without making any advance. This was losing too much valuable time, and after a week of ineffectual work a shaft 8 feet x 8 inches was located in the stripping and south of the crop-fall and sunk through broken ground to the bottom of the vein. Over this shaft the air-tight head-house was erected, boarded and battened and lined with brattice cloth and having a vestibule with double doors for the passage in and out of the bucket. To this shaft was attached a Sturdevant high speed steel plate force fan having a 25 inch discharge pipe and with no vent other than through the broken ground through which the men were working; the idea being to exert a pressure on all sides against the gases and surround the men with pure air, not only in the heading itself but also in every direction and for some distance in the broken ground around. Although this heading was originally intended to be filled with silt, it had advanced so far before ground sufficiently open for silting had been reached, that it was thought expedient to continue it and surround the fire; it was accordingly driven, first to the old first lift and then along the old gangway to a "dog-hole" from the "water level," where the only open ground was encountered in all the work, and thence along the old "water level," connecting finally near the

slope with a party driving west to meet them. That the plan of ventilation adopted here was eminently successful is proven by the fact that as far as the rock hole, the men suffered no inconvenience; it was when this point was reached that the gas noted in the early part of this description was dislodged.

It soon became evident that if any material gain was to be made against the fire, it must be done from the surface. Forepoling up a pitch of 25 degrees under the most favorable conditions is slow work, but when it is to be done through a live fire it becomes almost an impossibility, owing to the trouble to hold back the face, as frequently when room has been made and the face breasted for a set of timber, a rush of live coal would occur, engulfing two or three sets and the work of a week would be lost. It was then decided to begin re-opening the slope and west airway from the surface. This airway, as already stated, was closed by a fall at its mouth, and instead of going through this fall, a shaft 60 feet deep in clay and coal was sunk back of it to the airway. A similar head-house was placed here as at the stripping shaft, and a small engine used for hoisting. At the same time a large force was engaged at clearing away the mouth of the slope, which also caved in, and the work of re-opening was begun.

The situation at this time, possibly three weeks after the beginning of the fire, was as follows: East of the slope was a barrier of silt which could be depended upon; below the "water level" excepting in the immediate neighborhood of the slope, it was hoped that there was an unbroken chain pillar; the efficiency of the barrier west of the slope was doubtful, but still further west the old first lift and water level were being re-opened to cut off any fire which might have passed the barrier. The fire itself was in the slope and airways which had closed at the very beginning from just below the "water level" for a distance of at least 160 feet up the pitch, and very likely had spread east and west into the rubbed and crushed ground. Directly below the fire, men were trying to open through the fire itself in the slope and airways, while from the surface others were attempting to effect a junction with the men below, and thus divide the fire and pursue it to the barrier. The "fire roll" at this time, including all classes of labor, numbered about 300 men.

The tank at the surface having performed such effective work, a large and more substantial one, having a capacity of 15,000 gallons was erected on an old trestle back of the slope mouth and from its gates, sluice-ways were built, by means of which water could be deflected to the shaft, slope or east airway. To the sides of the tank also were attached 4 inch and 6 inch pipes running down the shaft and slope, to which could be attached any required number of $1\frac{1}{2}$ inch hose connections.

The city water supply having run short, the need of water to fight the fire became a serious matter. Steam had been carried to the lower pumps, but on starting them up it was found that the column pipes had been broken in the fire and the water could not reach the surface; moreover, the mines had gradually filled up until finally the water had run into Laurel Hill and had drowned out that colliery. An expedient here suggested itself; the 14 inch line down the westerly rib of the slope was selected as being probably straighter than the ones in the airway, and an 8 inch wrought pipe was forced through it and connected with the column pipe itself below the fire, thus relieving the mines and supplying water to the tank when needed; this with the water from the pump located at the swamp enabled the tank to be filled in about ten minutes.

The slope was re-opened to its original dimensions, 16 foot collar and 8 foot leg, and nothing smaller than 24 inch yellow pine timber was used. With the exception of about 15 feet near the mouth in which the timber was still standing, although very much charred, the slope was found to be tightly closed, and require forepoling with 8 inch poles on the roof and both sides; one set of timber, 5 feet per day for three shifts, was considered excellent work. In the greater part of this work the top rock was down and required great care and considerable labor in poling through it, and again the work was impeded by the fire which was on all sides. The plan of ventilating the slope was also similar to that adopted for the stripping and airway shaft; the large 20 foot fan was converted into a force fan and connected with the slope. Double doors were placed near the mouth, and the roof and sides bratticed, leaving only a small space around the sides of the brattice as an escape for the air.

It soon became evident that the air currents of the places above and below the fire were conflicting, and that the strong or upper current was forcing the gas against the lower, and overcoming the men, and since so little progress could be made in driving up the pitch, it was decided to suspend the work from below. This was accordingly done, pipe men alone remained to prevent the loss of the ground which had been gained by so much effort.

In the meantime good progress had been made in the airway until the old first lift was reached, when the fire was encountered, and from here to the "water level" where the connection was made, it was a continual fight to prevent the timber from burning. The fire at one point would be forced by the hose 15 or 20 feet away with everything dripping wet; but no sooner would the pipemen turn their attention to another point than the fire would again be down upon the timber, threatening to consume it; such also was the case in the slope, and it was realized that notwithstanding the number of

streams that might be used, in broken ground such as this it would be almost impossible to hold a place against the fire after having opened it.

Silting was decided upon in order to smother as much of the fire as possible and to pocket that remaining. All work directly against the fire was suspended, excepting that in the stripping, which was steadily advancing; batteries were built across the slope and airways below the fire, and all openings that had been made were run full with silt. A second star drill was brought upon the ground and wherever an opening, however small, was known or supposed to exist within the area effected by the fire, a 6 inch hole was put down; 39 holes in all, including the barrier holes, and averaging from 90 to 150 feet in depth, were drilled within an area of 140 feet by 360 feet, requiring in all about 20 days to perform the work. As each hole was finished it was immediatey silted tight and after having been allowed to settle for several days, was re-opened and filled again.

The impossibility of running the silt into every opening and crevice in such broken ground, precluded the hope that the fire would be entirely extinguished by this means, but it was thought that the greater part of it would be smothered and the remainder pocketed and prevented from spreading.

Immediately upon the completion of silting, and in about the tenth week of the fire, the silt was removed from the slope and airway and the work of re-opening the slope was continued and finally completed. A few pockets of fire were encountered which were easily extinguished, excepting at the old lifts, where it appeared to be burning as fiercely as ever. Work at re-opening the east first lift and the east and west water level was instantly begun, and the old tactics of protecting the timber by forcing the nozzles 15 or 20 feet into the broken ground around was resumed.

Fire also broke out in several points overhead in the re-opened west airway and after many ineffectual attempts to overcome it by means of long nozzles, it was decided to follow the airway down the pitch by a heading overhead, beginning at the shaft, and into this heading, water was to be repeatedly flushed from the tank. This was accordingly done and it proved the most effective method of all. At certain intervals during the day, or when an opening was encountered, three or four tanks of water, in all from 45,000 to 60,000 gallons, would be flushed down this top heading as rapidly as possible, filling it entirely, and percolating like a mammoth sprinkler from the very roof in all directions to the bottom of the vein. In this manner the old breast in which the airway was driven was followed down to the "water level" and all fire extinguished. Mean-

while the work of connecting the west water level was almost at a standstill, the men working on their knees and in relays of 5 minutes each, owing to the heat and gases above their heads, and it required the utmost vigilance to prevent the timber from burning; but the connection was finally made, about the time the top heading struck an opening like a huge oven 30 feet wide by 60 feet long, with fire along its bottom and just over the point of connection. This hole must have taken fully 1,000,000 gallons of water to cool it off, although the roof retained heat for four months afterwards. This practically settled the fire on the west side of the slope, although work was continued for some time afterwards in driving headings in the top and bottom of the vein in search of lurking fire.

The condition of the fire in the east side, however, was becoming serious. The gangways had been advanced 100 feet from the slope and still had fire ahead and around them. The increased heat and gas oozing out of the rib of No. 8 slope made it questionable as to whether or not the silt barrier had been penetrated by the fire. Forces were put to work immediately at re-opening the water level, seven foot and six foot gangways from No. 8 slope, and from these gangways, headings located outside of the barrier were driven up in the benches, almost to the outcrop, without discovering traces of fire. The first lift and water level gangways driven east were paralleled by panels along the top rock, driven on a decending grade to carry water, and were connected with the east airway and thus to the tank from which water was continually being flushed. Over the old gangways were continuous lines of cavities, full of fire and into which the silt had not penetrated. Thousands of gallons of water were flushed into these cavities before they were cooled. The old gangways were finally opened, but before the fire had been entirely extinguished the whole area between the slope and silt barrier into which the fire had spread, was cut up by a network of these panels along the top rock and in broken ground.

The heat endured in driving these panels was intense, even in the parts in which the fire had been extinguished, and it was customary, in order to make it possible for the men to work, to select certain shifts, generally on Sunday, in which all work would be suspended and the tank flushed continuously into the panels until each had been thoroughly saturated with water. The last vestige of fire was extinguished at the second heading from the surface in the east airway eight months after its breaking out. During these eight months 1,760 yards of panels and gangway and 85 yards of slope were opened, all of which was through broken ground and required fore-poling, and also mud-sills in the case of the overhead panels.

The experience which was gained at this fire and which may be of

value to others who may be similarly unfortunate in combating fire under like unfavorable circumstances are:

Silting through broken ground cannot be depended upon to entirely extinguish a fire, and it is useful only for the purpose of pocketing the fire and preventing its rapid spreading. It was found that the holes in broken ground were filled only in the hole itself, the sides having been packed and rendered impervious to silt by the drilling, and where cavities were cut the cavity itself would be tightly filled, but others immediately adjoining and connected by broken ground and full of large cracks and crevices, would contain no trace of silt, showing how impossible it would have been to seal the fire without indefinitely increasing the number of holes.

In advancing through broken ground in veins much more than 20 feet in thickness, where the condition of the roof prevents the exhaustion of the fire by drawing and removing it, better results are accomplished by driving the opening along the roof instead of at the bottom, as the chances of extinguishing all vestiges of fire are better by pouring the water, either from tanks or hose, down upon it from above than by forcing it up from underneath.

In advancing through broken ground on fire, a hose of small size is much better than one of a larger size, in that it is more easily handled, the holes can be drilled deeper and more streams taken from the main pipe and a better distribution of the water afforded. At this fire 1½ inch hose with gas pipe conections was used, having nozzles of gas pipe made up from 6 feet lengths, 1½ inch holes were drilled and any required number of these 6 foot lengths screwed together and inserted into the holes, after which the hose would be attached and the water turned on. Ordinarily from four to six streams were used at the same time in each place.

The ordinary system of ventilation by carrying a brattice on one side of the opening for the return air, did not answer in broken ground filled with deadly gases, inasmuch as the gases poured out and mixed with the fresh air passing into the same. This was remedied by using force fans only, and providing no return for the air other than through the broken ground, thus exerting a pressure against the gases and pressing them away from the opening by fresh air; or, in case there was too much vent, the roof and sides would be bratticed, and if insufficient, an air box 12 inches square would be carried overhead from the face out to a return, thus forcing a small current to pass in to the face and out of the box. The west airway and stripping openings were ventilated for the whole distance without and return, and yet there was no suffering among the men excepting from the extreme heat, although it was found, as a matter of information, that the gas surrounding them reached the surface in 35 seconds upon stopping the fan.

The analysis of this gas, made by Mr. R. L. Ogden who was constantly on the ground, showed 14 per cent. of "black damp" and 2 per cent. of "white damp."

It must not be supposed that by this system all trouble from gas was obviated; on the contrary, there was not a man working directly against the fire who had not been made sick or overcome by gas during its continuance; and this could not be otherwise when it is considered that there were generally from 8 to 10 places working at the same time within a limited area. To ventilate these places six fans were used, and it would have required an impossible nicety of adjustment of pressures to prevent a strong current from occasionally overpowering a weaker one. The return for these currents ordinarily was back through ground which had been recovered and was away from the fire, and which was kept saturated with water from the tank to prevent the fire from returning.

For the better understanding of this description of the manner in which the fire was surrounded and finally extinguished, a map has been prepared which shows in distinguishing colors the location of the various gangways and panels driven in the different benches of the vein, together with the position and extent of the fire and the location of other points which had important bearings upon the successful termination of the struggle.

The direction of the work in extinguishing the fire was conducted by Division Superintendent I. R. Moister and Fred. E. Zerbey, who were constantly on the ground, under the supervision of Mr. W. A. Lathrop, general superintendent, who was in constant communication with the mines, and was kept fully acquainted with the progress of the work each day.

Remarks on Mine Accidents from September 6 to December 31.

During this time twenty-two persons lost their lives in and about the mines of this district; eight by falls, five by cars, three by explosion of dynamite and six from miscellaneous causes.

Of the twenty-two deaths, I can say without fear of contradiction that only eight lost their lives through what should be termed unavoidable "accidents."

If the other fourteen persons who lost their lives had used only ordinary precaution, there is good reason to believe that they would be alive to-day.

From the above I have computed that less than thirty-seven per cent. lost their lives through all kinds of "accidents" during the above period, and that more than sixty-three per cent. of the accidents so called, must be attributed to the imprudence or whatever it should be termed of the victims themselves.

The public generally holds the superintendent, mine foreman and mine Inspector responsible for nearly all the accidents in and about the mines, but I am glad to bear testimony that the responsibility does not rest with them. If the employes inside and outside of the mines would take as much care of themselves while in the discharge of their duties as is exercised in their behalf by said officials, the list of accidents in and about coal mines would be materially reduced.

The victims, except in two instances lost their lives singly. The exceptions were the two men who were killed by a landslide and the three persons who lost their lives by an explosion of dynamite, both at Milnesville.

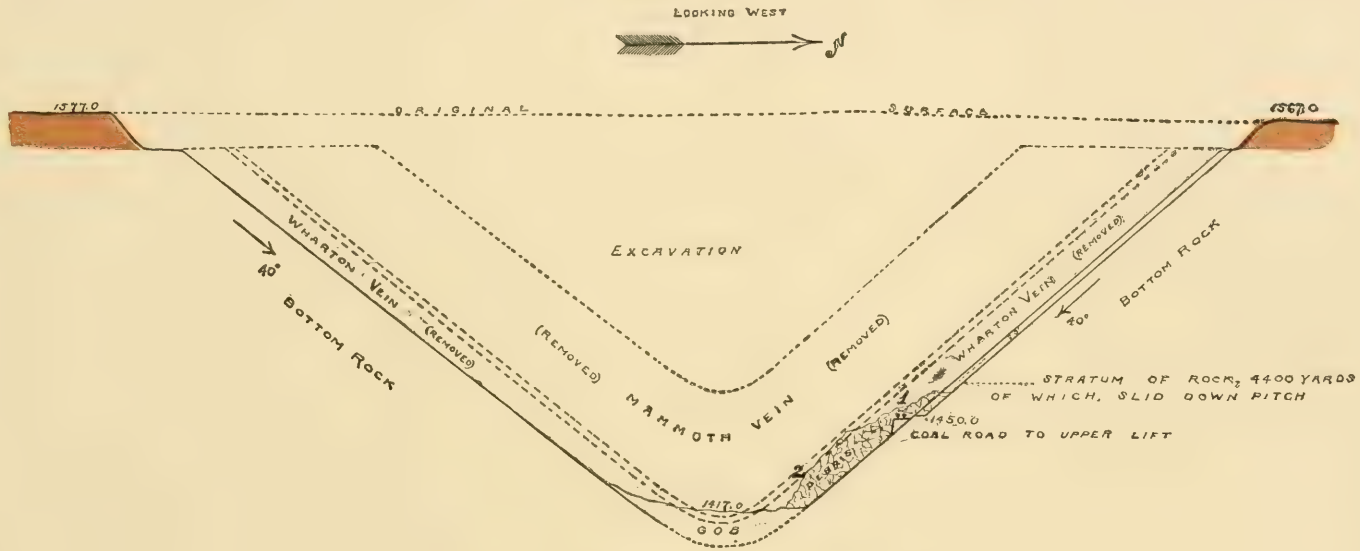
November 24th about noon, John Martin and John Tresko, drivers, were instantly killed by a slide of bottom slate and bone in stripping at No. 11 Milnesville.

As can be seen by the cross section, all the coal had been taken out of the basin where the accident occurred.

The deceased were in the act of taking out a trip of loaded cars on a counter road (about 33 feet vertically above the bottom) to the foot of a plane, where the coal and refuse is hoisted to the level of the surface. While nearing the foot of this plane, and without any warning, the slide took place, which carried the men, mules and cars to the bottom, covering and crushing the life out of the men and mules.

This is the first accident of the kind that ever occurred in this district, and as far as I know in any other anthracite district. There was never any doubts about the safety of this place, and no person thought that the men were in danger, as the bottom never showed any signs of giving way even after many years exposure to summer's heat and winter's frost. According to my judgment, the immediate cause of the accident is as follows: The day and the night preceding the accident, a very heavy rain storm passed over the region and a large body of water found its way into the cracks and crevices, that must have previously existed, acting as a hydraulic pressure of unknown weight against the somewhat loose ground, causing a portion of the steep embankment to slide without a moment's warning. While this was a most distressing accident, it might have been much more so, had it happened while the dozens of men who were working on a lower level, west of the scene of accident were seeking a place of safety during blasting, as they generally took shelter just beneath where the landslide took place. I call this an unavoidable "accident," and attach the blame to no person.

About half past eleven on December 27, William Lawrence, miner; Barrett Gormley, driller, and William Girard, foreman, lost



Section Through No. 11 Basin, Milnesville

SHOWING-WHERE JOHN MARTIN AND JOHN FREDA LOST THEIR LIVES

BY A SLIDE OF BOTTOM SLATE

1 = Showing Where Men Were Caught
2 = Showing Where Men Were Found

Scale 1 Inch = 50 Feet

W. L. CHAMBERLIN — ENG'R.

James E. Roderick Inspector

their lives by an explosion of dynamite and black powder. On this morning as usual, Lawrence and Gormley were drilling holes in the rock at the stripping, while Girard was firing a nest of boilers nearby. For some unknown reason, the three men, were inside or near a powder shanty which had in it four boxes of dynamite and about a dozen kegs of black powder, when an explosion took place, blowing the men to pieces, besides making a general wreck of the buildings. As all the witnesses to the sad affair are beyond our reach, we have failed to find out the cause of the explosion.

According to my suggestions, Superintendent Levan had ordered several powder shanties built, for the purpose of storing in each enough powder for a day's work, having the same properly equipped and heated with steam, so as to keep the temperature at 80 degrees Fahrenheit.

This was done to keep the dynamite in proper condition to be used, without resorting to the dangerous method of thawing it. Samuel Tinner, the mine foreman, testified at the inquest, that he had given instructions, that no person whatever was to be allowed to enter the powder shanties except the man or men who prepared the blast. As these two men were not ready to fire a blast, it is not known why they went into the powder shanty, but it is supposed that as it was a very cold day they went in to eat a piece. While they were there, young Girard also went in.

All we know is that an explosion followed as before stated, yet had these men obeyed orders, and kept away from the powder shanty, I would not have been called upon to record this sad affair.

TABLE 1.—*Showing location, &c, of collieries in the Fifth Anthracite District.*

Name of Colliery.	Name of Operator.	Location—County.	Name of Superintendent.	Postoffice Address.
Cranberry,	A. Pardee & Company,	Hazleton, Luzerne,	Frank Pardee, general superintendent,	Hazleton.
East Crystal Ridge,	A. Pardee & Company,	Hazleton, Luzerne,		
Drifton, Nos. 1 and 2,	The Cross Creek Coal Company,	Drifton, Luzerne,	Edgar Kudlich, M. E., and act. in. supt.	Drifton.
Eckley, Nos. 2, 6 and 10,	The Cross Creek Coal Company,	Eckley, Luzerne,	Edgar Kudlich, M. E., and act. in. supt.	Drifton.
Stockton, Nos. 3 and 7,	The Cross Creek Coal Company,	Stockton, Luzerne,	Edgar Kudlich, M. E., and act. in. supt.	Drifton.
Beaver Meadow, Nos. 1 & 2.	The Cross Creek Coal Company,	Beaver Meadow, Carbon,	Edgar Kudlich, M. E., and act. in. supt.	Drifton.
Tomhicken,	The Cross Creek Coal Company.	Tomhicken, Luzerne,	John Rohland, outside superintendent,	Drifton.
Derringer.	The Cross Creek Coal Company.	Derringer, Luzerne,	John Rohland, outside superintendent	Drifton.
Gowen,	The Cross Creek Coal Company.	Gowen, Luzerne.	John Rohland, outside superintendent	Drifton.
Colliery No. 1,	Lehigh Coal and Navigation Co.	Nesquehoning, Carbon,	William D. Zehner, general supt.,	Lansford.
Colliery No. 4,	Lehigh Coal and Navigation Co.	Lansford, Carbon,	William D. Zehner, general supt.,	Lansford.
Colliery No. 5,	Lehigh Coal and Navigation Co.	Lansford, Carbon,	Baird Snyder, assistant superintendent.	Lansford.
Colliery No. 6,	Lehigh Coal and Navigation Co.	Lansford, Carbon,	Baird Snyder, assistant superintendent.	Lansford.
Colliery No. 9,	Lehigh Coal and Navigation Co.	Lansford, Carbon,	Thos. M. Whildin, inside supt.,	Lansford.
Jeddo, Nos. 3 and 4.	G. B. Markle & Company,	Jeddo, Luzerne,	John Markle, general superintendent,	Jeddo.
Highland, Nos. 1 and 2,	G. B. Markle & Company,	Highland, Luzerne,	Samuel Dunkerly, inside supt.,	Jeddo.
Highland No. 5,	G. B. Markle & Company,	Highland, Luzerne,	Arthur Goedecke, outside supt.,	Jeddo.
Hazleton No. 1,	Lehigh Valley Coal Company,	Hazleton, Luzerne,	W. A. Lathrop, general superintendent	Wilkes-Barre.
Hazleton No. 2,	Lehigh Valley Coal Company,	Hazleton, Luzerne,	W. A. Lathrop, general superintendent.	Wilkes-Barre.
Hazleton No. 3,	Lehigh Valley Coal Company,	Hazleton, Luzerne,	Fred. C. Zerby, division supt.,	Hazleton.
Hazleton No. 5,	Lehigh Valley Coal Company,	Hazleton, Luzerne,	Fred. C. Zerby, division supt.,	Hazleton.
Hazleton No. 6,	Lehigh Valley Coal Company,	Hazleton, Luzerne,	Fred. C. Zerby, division supt.,	Hazleton.
Spring Mountain No. 1,	Lehigh Valley Coal Company,	Jeanesville, Luzerne,	David MacFarlane,	Jeanesville.
Spring Mountain No. 4,	Lehigh Valley Coal Company,	Jeanesville, Luzerne,	David MacFarlane,	Jeanesville.
Spring Brook Nos. 1 and 2,	Lehigh Valley Coal Company,	Yorktown, Luzerne,	Col. D. P. Brown, division supt.,	Lost Creek.
East Sugar Loaf, Nos. 1, 2 and 6,	Linderman & Skeer,	Stockton, Luzerne,	*Gomer E. Jones, inside superintendent.	Stockton.
East Sugar Loaf, Nos. 4 & 5,	Linderman & Skeer,	Stockton, Luzerne,	John Habel, outside superintendent,	Stockton.
Milnesville,	A. S. VanWickle.	Milnesville, Luzerne,	D. H. Levan.	Milnesville.
Coleraine,	A. S. VanWickle.	Beaver Meadow, Carbon,	D. H. Levan.	Milnesville.
Lattimer No. 1,	Pardee Bros. & Company,	Lattimer, Luzerne,	A. W. Drake,	Lattimer.
Lattimer No. 3,	Pardee Bros. & Company,	Lattimer, Luzerne,	A. W. Drake,	Lattimer.
Hollywood,	Calvin Pardee & Company,	Hollywood, Luzerne,	A. W. Drake,	Lattimer.
Harwood,	Pardee Sons & Company.	Harwood, Luzerne,	A. W. Drake,	Lattimer.
Upper Lehigh,	Upper Lehigh Coal Company,	Upper Lehigh, Luzerne,	A. C. Leisenring,	Upper Lehigh.
Treskow No. 1,	Lehigh and Wilkes-Barre Coal Co	Treskow, Carbon,	E. H. Lawall, general superintendent.	Wilkes-Barre.
Treskow No. 2,	Lehigh and Wilkes-Barre Coal Co	Treskow, Carbon,	D. R. Roberts, assistant supt.,	Audenreid.
Sandy Run,	M. S. Kemmerer & Co.,	Sandy Run, Luzerne,	Walter Leisenring,	Sandy Run.
Beaver Brook,	C. M. Dodson & Company,	Beaver Brook, Luzerne,	E. L. Bullock,	Audenreid.
Hazle Brook,	J. S. Wentz & Company,	Hazle Brook, Luzerne,	George Reichert,	Hazle Brook.
The Evans colliery,	The Evans Mining Company,	Beaver Meadow, Carbon,	Stewart Kennedy,	Hazleton.
The Ebervale washery,	New Ebervale Coal Company,	Ebervale, Luzerne,	John G. Scott,	Ebervale.

*James E. Roderick was the General Superintendent until he resigned to become the Inspector of this district.

TABLE No. 2.—*Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, etc., in the Fifth Anthracite District for the year ending December 31, 1895.*

Names of Collieries.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Number pounds of dynamite used.
A. Pardee & Company.												
Cranberry,	Hazleton, Luzerne,	241,409.13	218,214.13	196.6	869	3	6	7,425	52	94	7	12,255
East Crystal Ridge,	Hazleton, Luzerne,	65,562.10	56,255.10	186.3	233	1	6	1,546	17	14	1	
Total,		306,972.03	274,470.03	194.4	1,102	4	12	8,971	69	108	8	12,255
The Cross Creek Coal Company.												
Drifton, Nos. 1 and 2,	Drifton, Luzerne,	220,513.17	286,166.18	233	775	4	1	7,472	72	107	6	6,166
Eckley, Nos. 2, 6 and 10,	Eckley, Luzerne,	219,483.04	199,821.02	227	492	1	2	3,571	23	58	4	9,726
Stockton, Nos. 3 and 7,	Stockton, Luzerne,	182,937.18	165,854.07	201	421	1	2	3,691	22	29	2	13,944
Beaver Meadow, Nos. 1, 2 and 4,	Beaver Meadow, Carbon,	104,884.09	78,565.01	186	355	3	.....	1,555	30	22	2	11,041
Tomhicken,	Tomhicken, Luzerne,	8,667.00	8,121.00	25	125	1	.....	190	1	12	.....	1,482
Derringer, Nos. 1, 2 and 4,	Derringer, Luzerne,	.....	.....	.....	.....	2	4	.....	.....	.....	.....	.....
Gowen, Nos. 1, 3 and 4,	Gowen, Luzerne,	314,494.08	294,562.08	242	674	.....	.....	6,415	24	108	5	5,505
Total,		1,150,980.16	1,033,090.16	210.8	2,842	12	9	22,884	172	346	19	47,864
Lehigh Coal and Navigation Co.												
Colliery No. 1,	Nesquehoning, Carbon,	276,684.14	254,102.14	198.2	666	2	1	3,720	35	103	7	30,200
Colliery No. 4,	Lansford, Carbon,	152,030.18	131,975.14	183.8	398	.....	3	1,920	39	66	.....	12,359
Colliery No. 5,	Lansford, Carbon,	138,528.08	127,436 07	180.4	284	.....	3	1,380	6	46	2	18,709
Colliery No. 6,	Lansford, Carbon,	.....	.....	.....	203	.....	1	.....	24	.....	2	.....

TABLE No. 2.—*Continued.*

Names of Collieries.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Number pounds of dynamite used.
Colliery No. 9,	Lansford, Carbon,	211,098.17	198,281.12	193.9	396	.....	.....	189	13	68	3	4,250
Screen buildings,	Hanto,	11,624.00	.....	.....	282	.....	.....	.....	16	.....	4	.....
Total,		789,966.17	711,796.07	193.5	2,229	2	8	6,300	123	283	16	65,500
Jeddo, Nos. 3 and 4,	Jeddo, Luzerne,	222,201.11	186,206.11	147.4	514	.....	1	3,132	75	67	6	26,496
Highland No. 1,	Jeddo, Luzerne,	2,472.12	2,472.12	6.4	363	.....	.....	3,143	45	52	2	17,872
Highland No. 2,	Jeddo, Luzerne,	141,775.18	114,400.18	154.6								
Highland No. 5,	Jeddo, Luzerne,	304,352.17	297,052.17	164.2	457	1	1	5,776	12	66	.....	4,392
Total,		670,802.18	600,132.18	143.8	1,334	1	2	12,051	132	185	8	48,670
Lehigh Valley Coal Company.												
Hazleton No. 1,	Hazleton, Luzerne,	23,463.07	18,184.07	20	674	1	1	490	48	76	2	
Hazleton No. 2,	Hazleton, Luzerne,	67,614.11	59,073.11	176.6	297	.....	4	1,186	25	29	.....	
Hazleton No. 3,	Hazleton, Luzerne,	92,837.05	71,314.05	176.6	419	1	2	1,746	30	35	2	
Hazleton No. 5,	Hazleton, Luzerne,	44,454.11	34,642.11	108.9	446	3	3	1,407	9	30	1	
Hazleton No. 6,	Hazleton Luzerne,	.....	.....	.....	7	.....	.....	.....	10	1	.....	108,000
Spring Mountain No. 1,	Jeanesville, Luzerne,	144,973.15	131,272.15	216.9	230	2	6	412	21	43	1	
Spring Mountain No. 4,	Jeanesville, Luzerne	151,809.08	136,214.08	207.7	318	2	6	2,247	45	42	2	
Spring Mountain strippings,	Jeanesville, Luzerne,	.....	.....	.....	365	.....	.....	.....	6	17	5	
Spring Brook, Nos. 1 and 2,	Yorktown, Carbon,	182,286.16	162,720.16	192.3	448	.....	2	3,700	46	32	2	
Total,		707,439.13	613,422.13	160.7	3,204	9	24	11,188	240	305	15	108,000

Linderman & Skeer.												
Number One,	Stockton, Luzerne,							357	22		1	
Number Two,		470,551.13	370,175.05	230	769	2	12	2,575	54	121	1	79,206
Number Six,					5			580	36		1	
Numbers Four and Five,				210.9	203			3,223	28		d	
Total,		470,551.13	370,175.05	220.4	1,077	2	12	6,735	140	121	4	79,206
A. S. Van Wickle.												
Milnesville,	Milnesville, Luzerne,	405,285.02	415,284.02	264.8	931	10	1	2,372	67	86	4	268,875
Coleraine,	Beaver Meadow, Carbon,	259,391.00	238,310.18	243.1	529	3	5	4,935	61	91	4	63,525
Total,		724,676.02	653,595.00	274	1,460	13	6	7,307	128	177	8	332,400
Pardee Bros. & Co.												
Lattimer No. 1,	Lattimer, Luzerne,	106,088.13	92,871.10	146	361		1					
Lattimer No. 3,	Lattimer, Luzerne	239,922.03	212,895.12	236.4	447	1						
Washery,	Lattimer, Luzerne,	47,573.05	39,733.05	155.3	21		2	5,320	68	99	7	121,600
Strippings,	Lattimer, Luzerne,				214							
Total,		393,584.01	345,440.07	192.2	1,043	1	3	5,320	68	99	7	121,600
Calvin Pardee & Co.												
Hollywood,	Hollywood, Luzerne,	113,016.13	90,260.03	206.8	243		2	2,000	29	29	1	73,150
Hollywood strippings,	Hollywood, Luzerne,				93							
Total,		113,016.13	90,260.03	206.8	336		2	2,000	29	29	1	73,150
Pardee Sons & Co.												
Harwood,	Harwood, Luzerne,	234,121.00	192,797.09	217.4	872		7	8,120	54	61	1	9,000
Upper Lehigh Coal Company.												
Upper Lehigh colliery,	Upper Lehigh, Luzerne,	281,981.18	241,162.18	205	660	2	5	5,905	82	85	5	12,000
, Lehigh and Wilkes-Barre Coal Co.												
Treskow No. 2,	Treskow, Carbon,	160,227.07	137,131.06	222	478	2	3	2,047	49	32	2	10,350
Treskow washery,	Treskow, Carbon,	45,400.12	45,400.12		20				3			
Treskow strippings,	Treskow, Carbon,				345			1,352				6,710
Total,		205,627.19	182,731.18	222	583	2	3	3,399	52	32	2	17,060
M. S. Kemmerer & Co.												
Sandy Run colliery,	Sandy Run, Luzerne,	160,627.08	148,213.05	226	446		3	1,535	31	61	2	22,844

TABLE No. 2.—*Continued.*

Names of Collieries.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Pounds of dynamite used.
C. M. Dodson & Co.												
Beaver Brook colliery,	Beaver Brook, Luzerne,	200,239.00	169,726.00	180.8	549	3	.....	3,967	55	55	1	12,600
J. S. Wentz & Co.												
Hazle Brook colliery,	Hazle Brook, Luzerne,	106,700	97,002.08	206	369	1	4	2,645	18	26	1	9,400
The Evans Mining Company,	Beaver Meadow, Carbon,	35,000	25,726.00	133.7	208	.....	2	800	6	13	.....	5,500
New Ebervale Coal Company,	Ebervale, Luzerne,	39,280.05	39,028.05	179.8	153	.....	.....	.....	12	5	1	.....

Recapitulation.

A. Pardee & Co.,	Hazleton, Luzerne,	306,972.03	274,470.03	194.4	1,102	4	12	8,971	69	108	8	12,255
The Cross Creek Coal Company,	Drifton, Luzerne,	1,150,980.16	1,033,090.16	210.8	2,842	12	9	22,864	172	346	19	47,864
Lehigh Coal and Navigation Company,	Lansford, Carbon,	789,966.17	711,796.07	193.5	2,229	2	8	6,300	123	283	16	65,500
G. B. Markle & Co.,	Jeddo, Luzerne,	670,802.18	600,132.18	143.8	1,334	1	2	12,051	132	185	8	48,670
Lehigh Valley Coal Company,	Hazleton, Luzerne,	707,439.13	613,422.13	160.7	3,204	9	24	11,188	240	305	15	108,000
Linderman & Skeer,	Stockton, Luzerne,	470,551.13	370,175.05	220.4	1,077	2	12	6,735	140	121	4	79,206
A. S. Van Wickle,	Milnesville and Coleraine,	724,676.02	653,695.00	274	1,460	13	6	7,307	128	177	8	332,400
Pardee Bros. & Co.,	Lattimer, Luzerne,	393,584.01	345,440.07	192 2	1,043	1	3	5,320	68	99	7	121,660
Calvin Pardee & Co.,	Hollywood, Luzerne,	113,016.13	90,290.03	206.8	336	.....	2	2,000	29	29	1	73,150
Pardee Sons & Co.,	Harwood, Luzerne,	234,121.00	192,797.09	217.4	872	.....	7	8,120	54	61	1	9,900

Upper Lehigh Coal Company,	Upper Lehigh, Luzerne,	251,981.13	241,162.18	205	666	4	3	5,905	82	85	5	5	12,000
Lehigh and Wilkes-Barre Coal Company.	Treskow, Carbon,	205,627.19	182,531.18	222	583	1	2	3,599	42	22	2	2	17,060
M. S. Kemmerer & Co.,	Sandy Run, Luzerne,	160,025.08	148,213.05	229	446	.....	3	1,535	31	61	2	2	22,844
C. M. Dodson & Co.,	Beaver Brook, Luzerne,	200,239.00	169,726.00	180.5	549	1	.....	3,967	55	35	1	1	12,600
J. S. Wentz & Co.,	Hazle Brook, Luzerne,	106,700	97,003.00	206.7	389	1	4	2,645	18	26	1	.....	9,400
The Evans Mining Company,	Beaver Meadow, Carbon,	55,000	25,726.00	122.7	258	.....	2	880	6	13	.....	.....	5,500
New Ebervale Coal Company,	Ebervale, Luzerne,	39,280.05	39,028.05	174.8	153	.....	.....	.....	12	5	1	.....	.....
Total,		6,590,906.06	5,788,702.07	185.9	18,467	52	102	109,307	1,401	1,991	99	977,642	

12-16-95

TABLE NO. 3.—*Showing the number of each class of employes at each colliery in the Fifth Anthracite District during the year 1895.*

Names of Collieries.	Occupations of Persons Employed Inside							Occupations of Persons Employed Outside.							
	Inside foremen	Miners.	Miners' laborers.	All company men	Drivers and runners.	Door boys and help ers.	Total inside	Outside foremen	Blacksmiths and carpenters.	Engineers and firemen	Slate pickers	All other company men	Superintendents, bookkeepers and clerks	Total outside.	Grand total, inside and outside.
A. Pardee & Company.															
Cranberry colliery,	2	320	75	84	46	12	539	2	26	23	125	152	2	330	869
East Crystal Ridge,	2	58	27	27	8	3	125	1	6	9	54	38	.....	108	233
Total,	4	378	102	111	54	15	664	3	32	32	179	190	2	438	1,102
Cross Creek Coal Company.															
Drifton Nos. 1 and 2,	6	282	16	104	47	21	476	3	14	30	178	68	6	299	775
Eckley and Buck Mountain,	7	136	31	50	21	6	247	3	11	24	121	87	1	247	492
Stockton Nos. 3 and 7,	5	111	23	39	14	6	198	3	14	15	106	84	1	223	421
Beaver Meadow Nos. 1 and 2,	4	49	7	29	14	1	104	3	9	18	129	91	1	251	355
Tomhicken,	1	7	4	8	2	.....	26	2	3	7	60	32	1	105	125
Derringer and Gowen,	8	209	60	79	46	12	414	2	29	27	129	72	1	260	674
Total,	31	788	141	367	144	46	1,457	16	80	121	723	434	11	1,385	2,842
Lehigh Coal and Navigation Company.															
Colliery No. 1,	9	155	65	164	36	35	464	1	9	28	94	129	1	262	666
Colliery No. 4,	4	84	49	82	28	10	257	1	3	18	62	57	.....	141	398
Colliery No. 5,	4	58	29	51	11	4	157	1	4	12	59	51	.....	127	284
Colliery No. 6,	3	26	44	73	17	6	169	1	4	12	.....	26	.....	43	203

Colliery No. 9,	2	65	53	86	16	3	225	1	6	15	80	69	.....	171	396
Screen building,	.....	.....	.....	.....	.....	.....	.....	1	4	14	173	90	.....	282	282
Total,	22	398	240	377	108	58	1,203	6	30	99	468	422	1	1,026	2,229
G. B. Markle & Co.															
Jeddo No. 4,	1	51	60	167	30	5	323	1	14	20	81	68	7	191	514
Highland No. 2,	1	61	53	73	17	6	211	1	11	24	61	49	6	152	363
Highland No. 3,	1	108	110	24	31	9	283	1	12	11	83	60	7	174	457
Total,	3	220	223	264	87	20	817	3	37	55	225	177	20	517	1,334
Lehigh Valley Coal Company.															
Hazleton No. 1,	2	202	68	71	36	5	385	1	20	21	137	108	2	289	674
Hazleton No. 2,	1	86	35	35	15	5	177	1	4	5	63	48	1	122	297
Hazleton No. 3,	1	84	19	98	9	6	217	1	12	12	73	103	1	202	419
Hazleton No. 5,	1	115	45	38	8	4	211	1	8	15	114	96	1	235	446
Hazleton No. 6,	.....	.....	.....	2	.....	.....	2	.....	.....	2	.....	3	.....	5	7
Spring Mountain No. 1,	1	24	21	25	19	2	92	1	3	11	68	54	1	138	230
Spring Mountain strippings,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	365	365
Spring Brook colliery,	2	93	119	26	14	3	257	1	11	23	92	63	1	191	448
Spring Mountain No. 4,	1	68	15	26	26	9	139	1	3	13	75	86	1	149	318
Total,	9	673	322	321	121	32	1,478	7	61	102	622	561	8	1,696	3,204
Linderman & Skeer.															
East Sugar Loaf No. 1,	.....	16	14	24	7	.....	61	1	2	4	.....	15	.....	22	83
East Sugar Loaf No. 2,	1	72	109	74	25	6	286	1	3	17	143	97	5	266	552
East Sugar Loaf No. 6,	1	37	31	25	10	1	103	1	2	11	.....	18	.....	32	135
East Sugar Loaf Nos. 4 and 5,	1	79	52	14	23	3	172	1	3	12	65	50	.....	131	303
Total,	3	202	206	137	65	10	626	4	10	44	208	180	5	451	1,077
A. S. Van Wickle.															
Milnesville colliery,	1	19	44	25	9	.....	98	16	30	46	110	630	7	833	931
Coleraine colliery,	6	82	167	31	35	.....	322	5	14	19	62	102	6	208	529
Total,	7	101	211	56	44	.....	419	21	44	59	172	732	13	1,041	1,460
Pardee Bros. & Co.															
Lattimer No. 1,	2	15	69	34	7	6	133	2	12	18	118	93	7	250	361
Lattimer No. 3,	4	14	93	15	11	2	139	2	13	16	167	110	.....	308	147
Lattimer washery,	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	19	.....	21	21
Lattimer strippings,	.....	3	47	9	10	2	71	9	8	15	.....	111	.....	143	214
Total,	6	32	209	58	28	10	343	14	33	50	285	333	7	722	1,043

TABLE NO. 3.—*Continued.*

Names of Collieries.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							
	Inside foremen.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Door boys and helpers.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All other company men.	Superintendents, bookkeepers and clerks.	Total outside.	Grand total, inside and outside.
Calvin Pardee & Co.															
Hollywood colliery,	1	15	31	7	7	.....	61	1	11	17	84	67	2	182	243
Hollywood strippings,	2	14	33	5	4	.....	58	1	1	2	.....	31	.....	35	93
Total,	3	29	64	12	11	.....	119	2	12	19	84	98	2	217	336
Pardee Sons & Co.															
Harwood colliery,	6	260	135	26	28	19	474	1	19	30	225	121	2	398	872
Upper Lehigh Coal Company.															
Upper Lehigh colliery,	4	122	164	39	48	3	380	3	22	50	97	102	6	280	660
Lehigh and Wilkes-Barre Coal Company.															
Treskow No. 2,	2	51	42	138	12	4	249	1	6	27	72	62	1	169	418
Washery and strippings,	.....	.....	.....	.....	.....	.....	.....	1	2	4	25	141	.....	173	173
Total,	2	51	42	138	12	4	249	2	8	31	97	203	1	342	591
M. S. Kemmerer & Co.															
Sandy Run colliery,	2	62	86	23	25	3	201	2	8	28	78	118	11	245	446

C. M. Dodson & Co.															
Beaver Brook colliery,	2	86	93	47	26	10	264	2	10	23	123	120	7	285	549
J. S. Wentz & Co.															
Hazle Brook colliery,	2	102	58	16	26	8	212	2	4	17	124	5	5	157	369
The Evans colliery,	1	62	48	14	11	2	138	1	5	5	27	29	3	70	208
New Ebervale Coal Company,	.....	.....	.....	.....	.....	.....	.....	1	2	3	50	96	1	153	153

Recapitulation.

A. Pardee & Co.,	4	378	102	111	54	15	664	3	32	32	179	190	2	438	1,102
Cross Creek Coal Company,	31	788	141	307	144	46	1,457	16	80	121	723	434	11	1,385	2,842
Lehigh Coal and Navigation Company,	22	398	240	377	108	58	1,202	6	30	99	468	422	1	1,026	2,229
G. B. Markle & Co.,	3	220	223	264	87	20	817	3	27	55	225	177	20	517	1,334
Lehigh Valley Coal Company,	9	673	352	321	121	32	1,478	7	61	102	622	561	8	1,726	3,204
Linderman & Skeer,	3	202	206	137	65	13	626	4	10	44	208	180	5	451	1,077
A. S. Van Wickle,	7	101	211	56	44	.....	419	21	44	59	172	732	13	1,041	1,460
Pardee Bros. & Co.,	6	32	209	38	26	10	321	14	33	50	285	333	7	722	1,043
Calvin Pardee & Co.,	3	29	64	12	11	.....	119	2	12	19	84	98	2	217	336
Pardee Sons & Co.,	6	260	135	26	28	19	474	1	19	30	225	121	2	398	872
Upper Lehigh Coal Company,	4	122	164	39	48	3	380	3	22	50	97	102	6	280	660
Lehigh and Wilkes-Barre Coal Company,	2	51	42	138	12	4	249	2	8	31	97	195	1	342	583
M. S. Kemmerer & Co.,	2	62	86	23	25	3	201	2	8	28	78	118	11	245	446
C. M. Dodson & Co.,	2	86	93	47	26	10	264	2	10	23	123	120	7	285	549
J. S. Wentz & Co.,	2	102	58	16	26	8	212	2	4	17	124	5	5	157	369
The Evans colliery,	1	62	48	14	11	2	138	1	5	5	27	29	3	70	208
New Ebervale Coal Company,	.....	.....	.....	.....	.....	.....	.....	1	2	3	50	96	1	153	153
Total,	107	3,566	2,344	1,926	836	243	9,022	90	417	768	3,787	3,913	105	9,445	18,467

TABLE No. 4 — *List of fatal accidents that occurred in and about the mines of the Fifth Anthracite District for the year ending December 31, 1895.*

Date of Accident.	Number of Accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 4,	1	John Gillespie,	Miner,	48	....	3	Beaver Meadow.	Beaver Meadow, Car.,	These two men were fatally injured by a fall of dividing slate, which the miner neglected taking down, knowing it to be dangerous.
4,	2	Michael Hamerchak,	Laborer,	35	....	1	Beaver Meadow.	Beaver Meadow, Car.,	
4,	3	Pierce Henry,	Footman,	18	....	....	No. 6,	Milnesville, Luzerne,	Fatally injured by being caught between car and chute.
16,	4	Edward Wynne,	Assistant mine foreman.	38	....	3	No. 10,	Beaver Brook, Luzerne,	Fatally burned by an explosion of gas in an old breast on an idle day; no gas had ever been encountered in this mine before.
16,	5	George Nonstiel,	Laborer,	21	....	....	Derringer,	Derringer, Luzerne	Fatally injured by a fall of clod in breast.
16,	6	John Stephanko,	Miner,	40	....	....	No. 2,	Drifton, Luzerne,	Fatally injured by a fall of top coal after firing a blast; died next day.
29,	7	Ferdinand Kaeditz,	Machine driller,	21	....	....	Strippings,	Milnesville Luzerne,	Fatally injured by an explosion of dynamite while charging a hole, and using a piece of iron pipe for a tamping bar.
Feb. 22,	8	Oliver Miller,	Pumpman,	24	....	1	No. 7,	Hazleton, Luzerne,	Killed; fell from a car and down the slope, while being hoisted from third to second lift.
27,	9	Martin Dutkio,	Laborer,	22	....	....	Hazle Brook,	Hazle Brook, Luzerne,	Pelvis fractured by being squeezed between side of tunnel and car at foot of plane; died at hospital, March 1.
Mar. 2,	10	William T. Richards,	Timberman,	23	....	....	East Crystal Ridge,	E. C. Ridge, Luzerne,	Instantly killed by a fall of slate while in the act of securing it.
3,	11	Adam Shermer,	Engineer,	59	1	....	No. 7,	Hazleton, Luzerne,	Fatally injured by boiler explosion; died at hospital the following day.
8,	12	Michael Kaloditch,	Driver,	20	....	....	No. 3	Lattimer, Luzerne	Fatally injured by falling in front of car.

	9,	13	John Harris,	Laborer	35	1	4	No. 2,	Stockton, Luzerne,	Fatally injured by a fall of coal; the miner, Quinn, was severely injured by same fall.
	11,	14	Joseph Marzkoviak	Miner	30	1	4	No. 2,	Drifton, Luzerne,	Fatally crushed by a fall of coal which he was endeavoring to bar down.
	19,	15	Charles Minnich,	Driver,	16			No. 5 strippings,	Milnesville, Luzerne,	Received fatal injuries; foot and leg crushed, caught by car by his foot getting fast in latch at branch.
	26,	16	Joseph Bodinskey,	Laborer,	38	1	4	No. 2,	Treskow, Carbon,	Was instantly killed by fall of coal while loading a car on gangway.
April	13,	17	Canday Ramanda,	Miner,	27	1	1	No. 3,	Hazleton, Luzerne,	Fatally injured by a fall of top rock in gangway while examining the same after a blast.
	17,	18	Paul Ameris,	Roll feeder,	33	1	1	Cranberry breaker,	Cranberry, Luzerne,	Killed; used his foot to loosen some coal that had bridged itself on rollers, and was drawn in.
	26,	19	William Dugan,	Miner,	33	1		No. 4,	Cranberry, Luzerne,	Instantly killed by a pillar above cross cut crushing in upon him, to which he had retired for safety while firing a blast.
May	7,	20	Joseph Windisel,	Machine driller,	24			Strippings,	Jeanesville, Luzerne,	Blown to pieces by an explosion of five boxes of dynamite in a magazine. He was in the building alone; cause of explosion unknown.
	20,	21	George Howell,	Laborer,	52	1		Strippings,	Milnesville, Luzerne,	Ran on track in front of fast moving empty car; was knocked down and fatally injured; died at hospital the same night.
	27,	22	Adam Camella,	Miner,	32	1	2	No. 2,	Drifton Luzerne,	Fatally injured by a fall of rock while examining face of breast; died next day.
	28,	23	Thomas Gishow,	Runner,	19			No. 2,	Drifton, Luzerne,	Leg and arm badly mangled by falling under cars; died at hospital the same day.
June	4,	24	Michael Rudolph,	Door boy,	15			No. 5,	Highland, Luzerne	Killed at turnout on top of plane B, by falling under a trip of cars. At the time of crossing he had an empty powder keg under each arm.
	17,	25	John Condy,	Miner	38			Hazle mine No. 1,	Hazleton, Luzerne,	Was smothered by a rush of rock and coal while working at the mine face; his partner was taken out alive.
July	5,	26	Joseph Tomanaski,	Miner,	31	1	3	No. 1,	Jeanesville, Luzerne,	Killed by a fall of top rock while he was engaged with his two laborers pushing an empty car to face of gangway.
	31,	27	Alexander Morton,	Miner,	39	1	2	No. 4,	Jeanesville, Luzerne,	Killed by a premature explosion of dynamite in a hole that had misfired; was reopening hole with the aid of his laborer, who was badly injured.

TABLE NO. 4.—*Continued.*

Date of Accident.	Number of Accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Aug. 17,	28	Henry Steiner,	Miner,	29	1	1	South drift.	Derringer, Luzerne.	Instantly killed by a piece of top rock while loading a car; a short time previous to the accident he tried to bar down the piece that fell.
24,	29	John Lasko,	Miner,	33	1	....	No. 7, C. C. C. Co.,	Stockton, Luzerne	Fatally injured by a premature blast which he was preparing to fire; the flying coal fractured his skull and he died at the hospital the next day.
26,	30	John Prebuld,	Miner,	35	....	....	No. 7,	Upper Lehigh, Luzerne,	Fatally injured by a fall of top coal.
Sept. 16,	31	Michael Sandola,	Laborer,	20	....	....	No. 1,	Cranberry, Luzerne,	Killed by a fall of bony coal in Primrose vein; after examining the place thoroughly I came to the conclusion that he lost his life through the carelessness of the miner.
16,	32	Michael Partinko,	Timberman,	29	1	2	No. 5,	Hazleton, Luzerne,	Instantly killed by falling down the timber slope, while he and others were putting in a traveling way.
17,	33	John Markofski,	Miner,	40	1	....	No. 5,	Stockton, Luzerne,	Fatal fracture of skull, caused by falling prop; accident caused by neglect of miner.
Oct. 2,	34	Patrick McEvoy,	Water carrier,	14	....	....	Strippings,	Jeanesville, Luzerne,	This boy was fatally injured by falling in front of locomotive while attempting to jump down to turn a switch.
9,	35	Charles Broom,	Miner,	37	....	....	Shaft,	Upper Lehigh, Luzerne,	Killed by a fall of clod in a vein of coal about three feet thick.
10,	36	Robert Gardner,	Miner,	50	1	....	No. 1,	Nesquehoning	Fatally injured by a fall of coal; deceased and another miner were engaged taking a skip off a pillar, and while trimming some loose coal after a shot, he pulled a large piece loose which fell against him.

	23,	37	Andrew Urige	Miner, ...	35	1	4	Drift, ...	Coleraine, Carbon, ...	Instantly killed by a rush of coal in chute while opening the same; I considered this an unavoidable accident.
	24,	38	Andrew Maishkoski.	Miner, ...	48	1	2	No. 2, ...	Eckley, Luzerne, ...	Killed by a fall of a thin bench of coal near face of breast, which the other miner was barring down; carelessness on the part of both miners.
	25,	39	Lewis Thomas, ...	Driver, ...	18	....	....	No. 12, ...	Treskow, Carbon, ...	While taking a car out through gangway, from some cause he fell from the bumper, the front wheel passing over his body, killing him instantly.
	31,	40	Andrew Micz, ...	Laborer, ...	46	1	3	No. 2, ...	Stockton, Luzerne, ...	While assisting to raise a collar in the gangway, the scaffolding fell, and the collar fell on Micz, causing fatal injuries.
Nov.	5,	41	Albert Rowinski.	Laborer, ...	20	....	....	Strippings, ...	Coleraine, Carbon, ...	Caught between box and clay and fatally injured; died at the hospital the following day.
	21,	42	Isaac Applegate.	Helper, ...	25	....	....	Breaker, ...	Tomhicken, Luzerne, ...	Instantly killed; stepped in front of moving cars.
	26,	43	John Mooney, ...	Slate picker. ...	13	....	....	Breaker, ...	Beaver Meadow, Carbon,	Caught by a set screw that held collar on end of counter shaft and was whirled to his death; he was away from his work at the time.
	26,	44	John Tresco or Freda, ..	Driver, ...	25	1	1	Strippings, ...	Milnesville, Luzerne,..	These two men were instantly killed by a land slide, while taking a trip of loaded cars to bottom of slope, or rather to outside plane.
	26,	45	John Martin, ...	Driver, ...	33	1	2	Strippings, ...	Milnesville, Luzerne,..	
Dec.	12,	46	Mike Tobias, ...	Laborer.	24	....	....	Breaker	Coleraine, Carbon, ...	This man met a horrible death by having his head caught between the cars at foot of breaker plane.
	20,	47	Andrew Bobrek, ...	Topman, ...	25	....	....	Strippings, ...	Milnesville, Luzerne,..	Caught between cars at top of plan and was fatally injured; died at the hospital the following day.
	27,	48	William Lawrence, ...	Miner, ...	31	1	3	Strippings, ...	Milnesville, Luzerne, .	These three men were instantly killed by having been blown to pieces by an explosion of about seventy-five pounds of dynamite (Hercules) and about 300 pounds of black powder. The cause of the explosion is not known.
	27,	49	Barrett Tormly, ...	Driller, ...	25	1	3	Strippings, ...	Milnesville, Luzerne, .	
	27,	50	William Girard, ...	Fireman, ...	19	....	....	Strippings, ...	Milnesville, Luzerne, .	
	30,	51	William Rodgers, ...	Miner, ...	53	1	....	No. 1, ...	Beaver Brook, ...	Fatally injured by a fall of bony coal at the face of his breast, while in the act of taking it down.
	31,	52	James Lamon, ...	Loader, ...	37	S.	....	No. 1, ...	Nesquehoning	Was smothered by a rush of clay, which came on him through the battery.

TABLE No. 5.—*List of non-fatal accidents that occurred in and about the mines of the Fifth Anthracite District for the year ending December 31, 1895.*

Date of Accident.	Number of Accident.	Name of Person.	Occupation.	Age.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 3,	1	Joseph Moore,	Miner	41	No. 5, L. Coal & Nav. Co	Lansford, Carbon,	Seriously injured about head by being struck by coal.
5,	2	John Washilk	Laborer,	34	No. 6, L. Coal & Nav. Co.,	Lansford, Carbon,	Eye seriously cut by piece of flying slate.
7,	3	Joseph Bain,	Oil boy,	16	No. 5, L. Coal & Nav. Co.,	Hazleton, Luzerne,	Seriously injured; squeezed by timber on gangway.
14,	4	Michael Paralock	Miner	37	Spring Brook, L. V. C. Co.	Yorktown, Luzerne,	Slightly burned by explosion of gas.
16,	5	Stephen Fillo,	Driver,	21	Strippings,	Hollywood, Luzerne,	Arm fractured by being caught between cars.
16,	6	Stanley Slecoskey,	Miner,	27	No. 5, L. V. Coal Co.,	Hazleton, Luzerne,	Knee injured by a fall of dividing slate.
17,	7	David Price,	Miner,	43	No. 4, L. Coal & Nav. Co.,	Lansford, Carbon,	Collar bone fractured by being struck by a piece of timber.
18,	8	Peter Carlson,	Laborer,	39	No. 1, L. Coal & Nav. Co.,	Nesquehoning, Carbon,	Head severely injured by falling lumber.
18,	9	Paul Sevaldi,	Laborer,	29	No. 7, Cross Creek C. Co.,	Stockton, Luzerne,	Leg fractured by fall of coal.
24,	10	James Ford,	Footman,	25	Coleraine breaker,	Beaver Meadow, Carbon,	Leg fractured by coal rolling down plane.
29,	11	John Fada,	Laborer,	26	Strippings A. S. Van Wickle.	Milnesville, Luzerne,	Seriously injured by explosion of dynamite.
30,	12	Ignatz Shartvick,	Miner,	33	No. 5,	East Sugar Loaf, Luzerne,	Leg fractured by a fall of clod.
30,	13	Mike Selbo,	Driver,	27	No. 2,	Hazleton, Luzerne,	Both legs badly bruised by falling under slate car.
Feb. 4,	14	John Yurishen	Miner,	36	No. 2,	Stockton, Luzerne	Squeezed between rock and prop, injuring shoulders.
6,	15	Joseph McGee,	Miner,	26	No. 4, L. Coal & Nav. Co.,	Lansford, Carbon,	Hand badly lacerated by piece of falling coal.
11,	16	George Johnson	Miner	42	No. 4,	Jeanesville, Luzerne,	Injured about head and shoulders by fall of coal.
13,	17	Michael Boyle	Locomotive helper,	49	Spring Brook,	Yorktown,	Compound fracture of left leg and dislocation of left shoulder, caused by him slipping on ice and falling in front of locomotive.
15,	18	John Shetris,	Laborer,	19	No. 4,	Jeanesville, Luzerne,	Leg fractured above ankle by timber rolling on him, caused by canthook slipping.

	16,	19	Patrick T. Boyle,	Loader,	43	No. 5 colliery,	Lansford, Carbon,	Both ankles severely sprained by slipping on rail; he was idle sixty days.
	20,	20	Neal Boyle,	Miner,	38	No. 5 colliery,	Lansford, Carbon,	Back and arm injured by fall of slate.
	21,	21	John Kelner, Jr.,	Locomotive helper.	15	No. 3 colliery,	Lattimer, Luzerne,	Left leg fractured by being squeezed between derailed car and locomotive boiler on dirt bank.
	23,	22	Stephen Supko,	Loader,	21	Breaker,	Harwood, Luzerne,	Caught between car bumpers, causing compound fracture of left ankle.
Mar.	2,	23	Dennis Boner,	Co. laborer,	37	East Crystal Ridge,	E. C. Ridge, Luzerne,	Arm fractured by a fall of coal, which killed his partner.
	5,	24	Frank Scott,	Patcher,	16	No. 3,	Hazleton, Luzerne,	Leg fractured, slipped and caught under car.
	5,	25	John Spear,	Locomotive patcher.	19	No. 5,	Hazleton, Luzerne,	Squeezed about head and body; caught by ash car.
	9	26	Edward Quinn,	Miner,	46	No. 2,	Stockton, Luzerne,	Was seriously injured by a fall of coal, which killed his laborer.
	12,	27	Thomas Koovar,	Laborer,	50	No. 3,	Hazleton, Luzerne,	Leg fractured by a piece of coal falling against it.
	15,	28	Henry Punat,	Miner,	24	No. 2,	Stockton, Luzerne,	Face and hands burned by explosion of gas.
	20,	29	Daniel McGonigle,	Locomotive patcher.	18	Eckley,	Eckley, Luzerne,	Run over by cars while uncoupling them, and seriously injured.
	20,	30	Joseph Fishko,	Laborer,	30	Sandy Run,	Sandy Run, Luzerne	Leg fractured by a fall of coal.
	25,	31	John Roljial,	Laborer,	42	No. 2, outside,	Stockton, Luzerne,	Leg fractured by falling from a car.
	26,	32	George Yenn,	Laborer,	30	No. 2,	Treskow, Carbon,	Slightly injured by a fall of coal, which killed his co-laborer.
April	1,	33	Ezra Klinger,	Carpenter,	24	No. 1, surface,	Upper Lehigh, Luzerne	Leg fractured above ankle by a pile of plank sliding against it.
	4,	34	Santo Paraurep,	Miner,	35	Hazle Brook,	Hazle Brook, Luzerne,	Caught by rock which he was trying to bar down; back severely injured.
	4,	35	John McClosky,	Helper,	22	Strippings,	Jeanesville, Luzerne,	Ankles fractured and otherwise injured by falling down an embankment.
	8,	36	Anthony Yonefski,	Miner,	22	Harwood,	Harwood, Luzerne,	Struck by coal; compound fracture of ankle.
	10,	37	Edmund Jones,	Miner,	43	No. 4,	Jeanesville, Luzerne,	Leg fractured, hip dislocated and back injured by a fall of coal while examining it after a blast.
	13,	38	Joseph Coulon,	Driver,	18	No. 2,	Hollywood, Luzerne	Leg fractured by being struck by a bale of hay which fell from a car and down slope.
	24,	39	George Senkis,	Miner,	46	No. 2,	Hazleton, Luzerne,	Right hip badly contused; was struck by a piece of coal from a blast.
	25,	40	Frank Malefski,	Laborer,	28	No. 1,	Stockton, Luzerne,	Seriously injured by falling from a car and rolling down a very steep slope.
	26,	41	Thomas W. Davis,	Driver,	21	No. 4,	Upper Lehigh, Luzerne	Struck by derailed car, causing fracture of leg above knee.
	26,	42	Anthony Sabol,	Miner,	35	No. 4,	Harwood, Luzerne,	A piece of rolling coal caused a fracture of his leg.
May	20,	43	William Lilly,	Spragger,	18	No. 1 breaker,	Lattimer, Luzerne,	Arm fractured; slipped while spragging and was caught by car.
	20,	44	Peter Klapinski,	Miner,	31	No. 2,	Stockton, Luzerne,	Hip dislocated by a fall of rock.

TABLE No. 5.—*Continued.*

Date of Accident.	Number of Accident.	Name of Person.	Occupation.	Age.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
May	45	Jacob Attenson,	Miner,	42	No. 4,	Derringer, Luzerne,	Face and hands burned by an explosion of gas.
June	46	Adam Trimble,	Driver,	22	Sandy Run,	Sandy Run, Luzerne,	Concussion of brain, caused by being struck on head by part of a door, which was broken by a rush of wind, which was caused by a heavy fall of rock.
	47	Charles Herman,	Miner,	30	Hazle Brook,	Hazle Brook, Luzerne,	Leg fractured by a fall of bony coal.
	48	Benj. Leatherhouse,	Miner,		No. 1,	Hazleton, Luzerne,	Severely injured by a fall of coal while fighting the fire; his partner was killed.
	49	Charles Comesser,	Laborer,	29	Cranberry,	Cranberry, Luzerne,	Ankle severly injured by a fall of coal.
July	50	George Casvace,	Laborer,	45	Strippings,	Treskow, Carbon,	Leg fractured below knee by being caught by car.
	51	Gwalch Williams,	Laborer,	20	Strippings,	Treskow, Carbon,	Foot badly crushed by being caught by loaded car.
	52	William Brennan,	Miner,	40	No. 5,	Harwood, Luzerne,	Hands, face and neck burned by an explosion of powder while carelessly preparing a cartridge.
	53	Michael Vanschansky,	Driller,	30	Strippings,	Milnesville, Luzerne,	Seriously injured by the premature explosion of a blast.
	54	Louis Cassano,	Screen boss,	20	No. 2 breaker,	Hazleton, Luzerne,	Caught between car and post of chute and seriously squeezed about hips.
	55	John Kelshaw,	Miner,	32	No. 4,	Jeanesville, Luzerne,	Arm fractured and otherwise injured by a premature blast; his partner was fatally injured.
Aug.	56	Patrick Sweeney,	Fireman,	40	Eckley,	Eckley, Luzerne,	Jaw bone fractured and injured internally; he was caught by shaft while oiling bearings.
	57	Frank Glisley,	Miner,	55	No. 1,	Cranberry,	Head and hand cut and hip badly contused by a fall of slate in his breast.
	58	Frederick Heidt,	Driver,		Strippings,	Jeanesville Luzerne,	Leg fractured by car which he was running from dump leaving track and falling on him.

	19,	59	Joseph Yonda,	Driver,	23	West No. 1,	Stockton, Luzerne,	Was badly injured about hips by a piece of rock sliding down breast, striking car and pinning him between car and rib.
	20,	60	John Nodvaluk,	Laborer,	37	No. 4,	Jeddo, Luzerne,	Left arm and left leg fractured by a fall of coal while loading buggy.
	21,	61	Conrad Numerick,	Locomotive patcher,	19	No. 1,	Cranberry, Luzerne,	Caught between locomotive and car while uncoupling; leg badly contused at ankle.
	21,	62	James Howley,	Driver,	33	No. 1,	Cranberry, Luzerne,	Two ribs fractured; he was pulled between cars and a prop by his clothing being caught on stretcher hook.
	22,	63	Jonathan Schlauch,	Miner,	29	No. 4,	Derringer, Luzerne,	Face and hands burned by an explosion of fire damp.
	23,	64	Gatano Basso,	Laborer,	32	Strippings,	Jeanesville, Luzerne,	Arm fractured and scalp lacerated by a piece of rock falling from dipper.
Sept.	5,	65	John Day,	Miner,	32	No. 5,	Stockton, Luzerne,	Foot severely injured by a fall of clod.
	20,	66	Frank Billey,	Miner,	28	No. 4,	Cranberry, Luzerne,	Leg fractured and foot crushed by a rush of coal at battery.
	14,	67,	Gustav Haas,	Miner,	32	No. 1,	Cranberry, Luzerne,	Leg fractured by a fall of coal in Parlor vein.
	18,	68	George Debriskie,	Slate picker,		No. 5 breaker,	Hazleton, Luzerne,	Both legs fractured by being caught in an elevator shaft while playing.
	28,	69	Victor Dragalue,	Laborer,	23	East Crystal Ridge,	E. C. Ridge, Luzerne,	Seriously injured by a fall of coal.
	28,	70	John Witchock,	Jig tender,	23	Derringer breaker,	Derringer, Luzerne,	Fell from platform, causing fracture of leg.
	30,	71	Evan Gouldner,	Miner,	32	No. 6,	Upper Lehigh, Luzerne,	Leg fractured, caused by fall of slate.
Oct.	2,	72	Charles Christian,	Laborer,	19	Strippings,	Jeanesville, Luzerne,	Fell from steam shovel dipper and sustained fracture of left leg.
	8	73	Philip Krutzig,	Loader,	35	No. 4,	Lansford, Carbon,	Hands blown off, leg fractured and otherwise injured by an explosion of some dynamite which he was carrying in his pocket.
	9,	74	John Yefsko,	Laborer,	30	No. 5,	Upper Lehigh, Luzerne,	Was caught by a fall of clod and injured about body.
	10,	75	Andrew Molinskey,	Laborer,	28	Strippings,	Coleraine, Luzerne,	Leg fractured by being struck by cable box.
	12,	76	William Morgavish,	Miner,	37	No. 2,	Hazleton, Luzerne,	Was caught by a rush of coal at battery and severely injured about body.
	17,	77	John Heaton,	Driver,	20	West No. 1,	Stockton, Luzerne,	Fell into ditch while driving; leg fractured.
Nov.	1,	78	Paul Paisley,	Miner,	43	Derringer,	Derringer, Luzerne,	Collar bone fractured and otherwise injured by a fall of coal.
	4,	79	John Chestnitski,	Driver,	20	Strippings,	Lattimer, Luzerne,	Injured on back and internally by falling beneath a loaded car.
	8	80	Frank Orinkavitch,	Miner,	40	No. 4,	Harwood, Luzerne,	Slightly burned by an explosion of gas.
	15,	81	Joseph Cantone,	Miner,	25	No. 1,	Cranberry, Luzerne,	Body and hips injured by a fall of coal.
	15,	82	John Bohlas,	Miner,		No. 1,	Hazle Brook, Luzerne,	These two men were severely burned by an explosion of gas. This is the first time to discover any gas in this mine.
	25,	83	Nicholas Brancho,	Miner,		No. 1,	Hazle Brook, Luzerne,	
	15,	84	James Martin,	Slate picker,	13	No. 1 breaker,	Jeanesville, Luzerne,	Was caught in slate scrapers of Pea coal jig, causing fracture of arm.

TABLE NO. 5.—*Continued.*

Date of Accident.	Number of Accident.	Name of Person.	Occupation.	Age.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Nov. 18.	85	John Whaling,	Driller,	35	Strippings,	Coleraine, Carbon,	Leg fractured and severely cut about body by a premature blast.
19.	86	John Cull,	Footman,	23	No. 5,	Highland, Luzerne,	Arm fractured by being caught between loaded car and rib, caused by mistake of engineer.
20.	87	Edward Brandmire,	Patcher,	15	Sandy Run,	Sandy Run, Luzerne,	Fell from moving car, causing fracture of arm in two places.
28.	88	Samuel Davies,	Roadman,	48	No. 1,	Drifton, Luzerne,	Was struck by a car and severely injured.
28.	89	Anthony Stankavish,	Patcher,	17	No. 2,	Stockton, Luzerne,	Was kicked by mule and severely injured.
Dec. 2.	90	Mike Legasa,	Laborer,	27	No. 2,	Stockton, Luzerne,	Leg fractured by a fall of coal.
2.	91	Michael Tando'a,	Miner,	20	East Crystal Ridge,	E. C. Ridge, Luzerne,	Slightly burned on hands and face by an explosion of gas.
7.	92	Joseph Comiskie,	Miner,	32	East Crystal Ridge,	E. C. Ridge, Luzerne,	Back broken by a fall of bony coal.
7.	93	Thomas Durett,	Laborer,	20	No. 2,	Treskow, Carbon,	Caught between empty cars; leg fractured.
9.	94	Anthony Bennie,	Miner,	32	No. 2,	Stockton, Luzerne,	Severely injured about body by fall of coal.
11.	95	Stephen Warger,	Laborer,	26	Breaker,	Harwood, Luzerne,	Slipped and fell in front of loaded car, causing fracture of left leg.
12.	96	Mike Kan,	Laborer,		No. 7 breaker,	Stockton, Luzerne,	Arm fractured, caused by falling in breaker.
12.	97	Andrew Pushall,	Miner,		No. 5,	Harwood, Luzerne,	Seriously injured about body by a premature blast.
12.	98	George Brehm,	Driver,	21	No. 1, Spring Mountain,	Jeanesville,	Leg fractured by a mule he was riding falling and rolling on him.
12.	99	David Parry,	Driver,	19	Stripping, Spring Mount'n,	Jeanesville,	Was caught between a car and pulley, causing the fracture of his right leg.
17.	100	Thomas Ferry,	Miner,	56	No. 9,	Upper Lehigh,	Fell from a platform while raising a collar; his arm was fractured.
20.	101	Patrick Hackett,	Miner,	61	Strippings,	Jeanesville,	Ribs fractured by being struck by a piece of rock rolling from bank.
21.	102	Alexander Matevitch,	Driver,	21	No. 2,	Coleraine,	Hip dislocated; was caught between mine cars.

SIXTH ANTHRACITE DISTRICT.

(SCHUYLKILL COUNTY.)

Shenandoah, Pa., February 20, 1896.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: As required by section nine of article two of the act of June 2, 1891, I have the honor of herewith submitting to you my annual report of the Sixth Anthracite Coal District for the year 1895.

The report shows the decrease in the number of fatal accidents to be fourteen, or twenty per cent., and of the non-fatal accidents, nine, or ten per cent. less in 1895 than in 1894. It also contains the usual tables giving a brief description of how the accidents occurred; the names and location of collieries; the number of tons of coal produced and shipped from each, as well as produced and shipped by the respective companies and individual firms, together with the total number of tons of 2,240 pounds per ton produced and shipped from the entire district during the year 1895.

Yours very respectfully,

WILLIAM STEIN,
Inspector of Mines.

Examination of Applicants for Mine Foreman's Certificates.

The annual examination for mine foreman's certificates was held in Pottsville, July, 1895.

The examiners were William Stein, Mine Inspector; William H. Lewis, superintendent; Frank Wilkum, miner and Michael Brennan, miner.

The following are the names of the successful candidates: George McGee, Freeland; James Cranny, Mahanoy Plane; Frederick Weeks, Gilberton; Anthony Gaughan, Girardville; James Brennan, Yatesville; Gethin Powell, Mahanoy City; John Cavanaugh, Gilberton; William Edwards, Frackville; Robert Painter, Gilberton; Richard Close, Gilberton; Frank Terrill, Gilberton; William J. Price, Frackville; Elias Cooper, Girardville; Robert Coxson, Frackville; Thomas J. Meyers (Maple Hill), St. Nicholas; Daniel Skeath, Mahanoy City; Felix O'Brien, Raven Run; John Eagan, St. Nicholas; William Lynch, St. Nicholas; Frank Kelly, Centralia; Frederick Hughes, Hazleton and Frank Wilcom, Shenandoah.

I am pleased to report a decrease of nearly twenty per cent. in the fatal accidents and ten per cent. in the non-fatal accidents for the year 1895, as compared with the previous year and the returns from the respective collieries operating in the district, show an increase in the shipments of 747,866 tons for 1895, as compared with 1894.

The total number of employes working in and about the collieries in 1895 was 19,814, showing a decrease in the number of employes of 294 as compared with the year 1894.

During the year I carefully noted the causes of the fatal accidents which number 59, of these 47 lost their lives either by carelessness or from a want of knowledge to determine as to the safety of their working places; three lost their lives through the neglect of the fire boss in allowing the victims to enter their place of work before first removing the gas; the remaining nine I considered purely accidental. In the discharge of my duties making examinations of the collieries throughout the district, it has been a great source of worriment to me why the death rate should not be reduced to a minimum when I consider the safe condition of the collieries and that they are being improved yearly.

Referring to table A, we have four deaths by explosions of blasting material, four by premature explosions, four by being crushed by mine cars, four by machinery on surface and five in the miscellaneous column. Twenty-one lives having been lost by the most manifest recklessness on the part of the victims themselves.

From inquiry I have learned that many of the workmen go to work in the morning and to their night shift under the influence of drink, and are unfit to properly care for themselves. I had occasion to visit a colliery on the 8th of November, and left at quitting time, and found a miner on top who had come late for work and was refused to be lowered down because he was under the influence of drink. Some of the mine foremen occasionally have to send men home and even discharge them because of drink, yet it is a very easy matter to pass the foreman and not be detected. I am satisfied beyond a question of doubt from my own observations and from information received from others, that many lives are sacrificed through the excessive indulgence in intoxicating drink at night, and then going to work the following morning in a dazed condition.

There has been no question more repeatedly thrashed out in modern times than the question of how to reduce accidents in and about the mines, which for years has given much food for study on the part of those interested as to how the problem can be best practically solved.

The mineral resources of the State very largely contribute towards its wealth, and they may be legitimately considered the great lever

by which all the other industries are moved, and there is no department of industry within the borders of the State or even throughout the commercial world that deserves more attention and care in connection with mining millions of tons of coal from our anthracite mines, than the question of how these millions can be produced with the least possible loss of life or limb. When I take a retrospective view and compare the present system of mining and mine appliances with that of fifty years ago, I notice a more permanent construction of shaft and slope openings, of transportation and ventilating avenues, better drainage, larger pillars formed for the support of the superincumbent strata so as to prevent a sudden displacement of a large area of the roof which might cause serious loss of life or imprison the workmen for a time.

I notice also the improved types of hoisting, ventilating and pumping machinery; the ropes and chains are of the best manufacture and of such diameters that the difference between the working load and the breaking strain do not approximate. We have also a mine law which is mandatory in its construction, and is considered to be the best even by critics in countries where mine laws have been longer in existence, and that it has been instrumental in preventing accidents, since its enactment, no one will gainsay, I am glad to report that all these improvements are taken advantage of in the Sixth District, the collieries are equipped with the most modern machinery and appliances that is possible for the best brains of the present century to construct.

The mining department inside is conducted on the most improved system so as to surround the miners and others working inside with all the appliances possible for safety, in order that accidents may be reduced, yet the improvements I have enumerated seem to fail to reduce the number of casualties in and about the mines, and so we very naturally again repeat the question why all these accidents year after year, notwithstanding we claim that we are so far ahead in the march of intellect in regard to scientific and practical mining compared with fifty years ago. Can they not be reduced? We answer, yes, they can be reduced at least eighty per cent. I have already stated that forty-seven lives were lost in 1895 by the victims themselves choosing to take unusual risks while in the performance of their day's work, and we can only persume their reasons for so doing. Nevertheless while investigating and examining into the causes of these accidents, it was very manifest to me as well as to those accompanying me, that the deceased either knew the danger, or was reckless, or had not the practical knowledge to determine whether the surroundings of his place of work was safe or not. Referring to table A, we record deaths from "Explosions of Blasting Material," "Prema-

ture Explosions," "Crushed by Mine Cars," "By Machinery on Surface." The first means, that a man is filling a cartridge with powder with his lamp on his head, a spark falls into the keg, igniting the powder, burning him fatally or killing him instantly. The second means, a man ignites a blast but does not give it the proper time to explode, and under the impression that it has missed fire, returns to renew the squib, when the blast goes off killing him or disabling him for life, or again it means that the blast may fail to explode, even although several attempts have been made and the miner concludes to withdraw or drill out the tamping, and when nearing the explosive it explodes and kills him. The third means, killed or injured getting on or off between the cars and coupling or uncoupling them while in motion. The fourth means, that some of those working in our breakers will leave their place of work unobserved by the man in charge, crawl over fences and among the machinery so as not to be detected in order to reach some of their fellows, and lives are often sacrificed by this practice.

Men should be held responsible for taking unusual or extraordinary risks while engaged at their daily avocations under any conditions.

I have been engaged working in and about mines from my boyhood, and these many years of experience have taught and convinced me that the only practical way by which the number of mine accidents may be reduced, is for our workmen to comply with the mine law and co-operate with the means furnished by their employers to prevent them.

The Following is the Number of Accidents Fatal and Non-Fatal and the Nationalities of Those Killed and Injured.

	Fatal.	Non-fatal.
Americans,	9	16
English,	1	1
Irish,	5	8
Welsh,	1	6
Germans,	6	5
Scotch,		
Poles,	28	43
Hungarians,	6	3
Italians,	4	2
Austrians,		1
Total,	59	84

Trifling accidents,	63
Maimed,	10
Wives left widows,	27
Orphans,	56

Table Showing Comparative Statement of Fatal Casualties for Years 1894 and 1895.

	Years.	
	1894.	1895.
Explosions of fire damp,	12	10
Explosions of blasting material,	2	4
Premature explosions,	3	4
Falls of coal and roof,	23	24
Crushed by mine cars,	7	4
Falling down shafts and slopes,	2	4
By coal flying from shots,	1	
By machinery on surface,	4	4
Boiler explosions,	4	
Suffocated by gas,	2	
Miscellaneous,	13	5
Total,	73	59

Table Showing Comparative Statement of Non-Fatal Casualties for the Years 1894 and 1895.

	Years.	
	1894.	1895.
Explosions of fire damp,	22	15
Explosions of blasting material,	1	1
Premature explosions,	8	8
Falls of coal and roof,	23	23
Crushed by mine cars,	20	22
Falling down shafts and slopes,	2	
By coal flying from shots,	2	2
By machinery on surface,	2	4
Boiler explosions,	1	
Miscellaneous,	15	7
Total,	94	80

Table Showing the Quantity of Coal Produced and Shipped During the Years 1894 and 1895.

	Years.	
	1894.	1895
Quantity of coal produced in tons of 2,240 pounds,	6,340,631	7,164 895
Quantity of coal shipped in tons of 2,240 pounds,	5,888 300	6,636,166

Table Showing Number of Fatal Accidents and Quantity of Coal Produced per Life Lost.

	Number of fatal accidents.	Tons of coal produced per fatal accident.
Philadelphia and Reading Coal and Iron Company,	29	139,839
Lehigh Valley Coal Company,	11	52,937
Lehigh and Wilkes-Barre Coal Company,	4	105,152
Lentz, Lilly & Co.,	4	97,703
Silver Brook Coal Company,	*	.....
Mill Creek Coal Company,	1	227,297
William Penn Coal Company,	3	91,603
Coxe Brothers,	4	66,102
Individual operators,	3	138,329

Table Showing Comparisons Between the Years 1894 and 1895.

	Years.	
	1894.	1895.
Number of persons employed,	20,109	19,810
Tons of coal produced per life lost,	86,847	124,828
Number of tons of coal produced per each personal injury,	37,963	49,758
Ratio of employes per life lost,	274	338½
Average number of tons of coal produced per employe	315	359
Ratio of employes per each personal injury,	119	139

The following table, taking the death rate per thousand as a basis of comparison between the different companies and individual operators, shows the ratio for the year.

	Number of employes.	Number of deaths.	Death rate per thousand.
Philadelphia and Reading Coal and Iron Company,	11,204	29	2.6
Lehigh Valley Coal Company,	2,145	11	5+
Lehigh and Wilkes-Barre Coal Company,	1,695	4	2.9
Lentz, Lilly & Company,	1,067	4	3.7
Silver Brook Coal Company,	475	*	.....
Mill Creek Coal Company,	706	1	1.4
William Penn Coal Company,	629	3	4.8
Coxe Brothers,	776	4	5+
Individual operators,	1,117	3	2.6

* No deaths.

Comparative Statement of Fatal and Non-Fatal Casualties and Their Causes for Five Years.

Casualties.	1891.	1892.	1893.	1894.	1895.	Total for five years.
Fatal.						
Explosions of fire damp,	4	7	1	12	10	
Explosions of blasting material,	3	.....	3	2	4	
Premature explosions,	6	4	1	3	4	
Falls of coal and roof,	28	21	27	23	21	
Crushed by mine cars,	7	9	11	7	4	
Falling down shafts and slopes,	3	.....	2	2	4	
By coal flying from shots,	1	.....	1	1	.....	
By machinery on surface,	2	2	4	4	4	
Boiler explosions,	.....	.....	2	4	.....	
Suffocated by gas,	.....	.....	.....	2	.....	
Miscellaneous,	12	11	5	13	5	
Totals for the respective years,	66	54	60	73	59	312
Non-Fatal.						
Explosions of fire damp,	10	31	28	22	15	
Explosions of blasting material,	5	.....	8	1	1	
Premature explosions,	5	4	10	8	8	
Falls of coal and roof,	31	32	36	23	26	
Crushed by mine cars,	18	17	28	20	22	
Falling down shafts and slopes,	.....	.....	.....	3	.....	
By coal flying from shots,	3	3	1	2	2	
By machinery on surface,	2	2	8	3	4	
Boiler explosions,	.....	.....	.....	1	.....	
Miscellaneous,	18	23	20	13	7	
Totals for the respective years,	92	112	134	91	85	522

Years.	Killed.	Injured.	Total.	Total number of employes.	Number of employes to each casualty.	Number of tons of coal mined to each fatal casualty.	Number of tons of coal mined to each non-fatal casualty.	Ratio of tons of coal to each casualty.	Number of tons of coal mined to each employe.	Total number of tons of coal mined.
1891,	66	92	158	19,427	123	96,747	69,775	40,628	329	6,419,[illegible]0
1892,	54	122	176	20,414	116	118 491	52,313	36,253	312	6,382,346
1893,	60	139	199	21,974	110	110 597	47,737	38,345	302	6,674,897
1894,	73	94	167	20,109	120	86,847	67 445	37,963	305	6,339,83[illegible]
1895,	59	85	144	19,814	139	124,828	84,292	49.758	359	7,164,895
Total,	312	532	844	101 738	608	537,510	321,562	202 957	1,607	32,981.181
Averages,	62.2	106.2	168.4	20,347.3	121.3	107,502	64,312	50,591	321.2	6,5[illegible]6,231

Names of Collieries and the Number of Accidents that Occurred at Each and the Names of Foremen.

Names of Collieries.	Fatal accidents inside.	Fatal accidents outside.	Non-fatal accidents inside.	Non fatal accidents outside.	Trifling accidents inside.	Trifling accidents outside.	Names of Inside Foreman.	Names of Outside Foreman.
Boston Run,	....	1	....	1	1	....	Thomas Coan,	John Durkin.
Bear Run,	1	....	4	....	5	....	Ralph Platt,	Thomas Lawrence.
Ellangowan,	....	....	5	....	2	....	George Richardson,	John Heiler.
Elmwood,	....	....	1	....	2	....	Michael Bradley,	Uriah W. Tilby.
Girard,	....	....	....	....	....	....	John Hanson,	William Buckley.
Girard Mammoth,	....	....	2	1	2	....	Charles Haslor,	William Moyer.
Gilberton,	....	....	....	1	2	1	George Thomas,	William Burdon.
Hammond,	1	....	....	....	....	....	David Fulton,	John Haley.
Indian Ridge,	1	1	6	1	....	....	Morgan Davis,	Albert Smith.
Knickerbocker,	4	....	9	....	2	....	John Brown,	Joseph Knapp.
Kohinoor,	....	....	2	....	1	....	Thomas James,	Dan. Landerman.
Mahanoy City,	1	....	1	....	1	....	George Kilgore,	Anthony Ferguson.
North Mahanoy,	3	1	4	1	....	....	Gotlieb Sheath,	Swanson Eltringh
St. Nicholas,	....	....	1	....	2	1	Edward Coyle,	William Sauerbr y.
Suffolk,	2	....	....	....	2	1	David Adamson,	William Sauerbrey.
Schuylkill,	....	....	1	....	....	..	James McCabe,	B. F. Seligman.
							Fred Carl,	
Shenandoah City,	....	1	....	....	2	....	John W. Morgan,	Marshall Baugh.
Turkey Run,	1	....	1	....	1	....	Ben. Church,	Fred. Reese.
Tunnel Ridge,	2	....	1	....	....	....	Thos. Eltringham,	John Reid.
Bear Ridge,	5	....	2	1	9	....	John Kline,	Arthur Jones.
West Shenandoah,	1	....	....	1	2	....	David Morgan,	A. D. Gable.
East Bear Ridge,	....	....	....	1	2	....	William Evans,	Arthur Jones.
Maple Hill,	2	....	7	....	2	....	Jas. P. McDonald,	Thomas Williams
Draper,	1	....	....	....	1	....	John Matthews,	William P. Bow n.
Packer No. 2,	3	....	3	....	....	....	John Jones,	Frank Scanlon
Packer No. 3,	3	....	4	....	4	....	James Irvin,	William Kacrcher.
Packer No. 4,	3	....	2	....	....	....	James Heaton,	John Brennan.
Packer No. 5,	1	....	3	1	2	..	Morgan Price,	A. D. Brown.
							Thomas McKeone,	
Honey Brook No. 4,	1	....	....	1	....	....	Evan R. Williams,	Thomas Bailey.
Honey Brook No. 5,	....	3	....	....	....	....	David Reese,	Henry W. Mader.
Green Mountain slope,	....	....	....	....	....	....	David Reese,	Henry W. Mader.
Park No. 2,	....	....	....	....	....	....	Jas. Goldsworthy,	Edward Sykes.
Park No. 3,	3	....	1	....	1	....	William Hillhouse,	Edward Sykes.
Springdale,	1	....	3	....	5	..	Edward Mates,	Samuel Fahringer.
							Wm. Davidson,	
Silver Brook No. 1,	....	....	....	....	....	....		
Silver Brook No. 2,	....	....	....	1	1	1	J. A. McDonald,	E. W. Miller.
William Penn,	3	....	5	1	2	....	Richard Palmer,	Ben. Beddall.
Buck Mountain,	1	....	2	....	....	....	William Powel ,	Michael Meyers.
Vulcan,	....	....	....	....	....	....	Thomas K. Youn ,	Valentine Meyers.
Kehley's Run,	1	....	....	....	2	....	John Schwint,	John Keiper.
Glendon,*	....	....	....	....	....	....		
Primrose,	1	....	....	....	....	....	William Palmer,	E. C. Price.
Oneida No. 1 slope,	....	2	....	....	....	....	Thos. Macnamara,	Charles Singley.
Oneida No. 2 slope,	1	....	....	....	....	....	Christ. Miller,	Charles Singley.
Oneida No. 3 slope,	1	....	1	....	2	....	Tobias Seiwell,	Charles Singley.
Lawrence,	2	..	1	1	2	....	Ben. Evans,	— Ruebrecht.
Cambridge,	....	....	....	....	....	....	John McGinnis,	David James.
Furnace,	....	....	....	....	....	....	Thomas James,	Mahlon Gerber.
Total,	50	9	72	85	62	4		

* Abandoned.

Total Number of Persons Employed Inside and Outside and Their Description of Service.

Inside.

Inside foremen,	172	
Miners,	4,388	
Miners' laborers,	2,430	
All other company men,	2,809	
Drivers and runners,	810	
Door-boys and helpers,	266	
Total inside,		10,875

Outside.

Outside foremen,	72	
Blacksmiths and carpenters,	454	
Engineers and firemen,	794	
Slate pickers,	4,050	
All other company men,	3,462	
Superintendents and clerks,	103	
Total outside,		8,935
Total inside and outside,		19,810

Average Number of Days Worked by the Various Coal Companies and Individual Operators for the Year 1895.

Philadelphia and Reading Coal and Iron Company,	193
Lehigh Valley Coal Company,	176¼
Lehigh and Wilkes-Barre Coal Company,	215
Lentz, Lilly & Co.,	200½
Silver Brook Coal Company,	257
Mill Creek Coal Company,	118.7
William Penn Coal Company,	252
Coxe Brothers,	296
Individual firms,	199

Number of pounds of dynamite used,	335,895
Number of kegs of powder used,	157,456
Number of steam boilers in use,	1,168
Number of mules and horses in use,	1,979

Improvements at Collieries.

West Bear Ridge Slope.

A main tunnel was driven from north dip third lift West Mammoth gangway to south dip of same vein, distance 23⅜ yards; also an air tunnel was driven from Mammoth vein north dip third lift west gangway to Mammoth vein south dip, length, 38⅜ yards.

East Bear Ridge Slope.

A tunnel was driven from Mammoth vein slope level to Buck Mountain vein; total length, 78½ yards; also a steam way in Skidmore vein from first lift to water level, length, 100 yards.

Girard Mammoth Colliery.

The water was pumped from Cuyler western slope sunk in the Buck Mountain vein, and the slope was retimbered.

Draper Colliery.

One new Philadelphia and Reading pump has been put in at the third lift of the Holmes vein; size, 9x38x18 inches, and another of the same type at the fifth lift of the Mammoth vein, having a 20 inch cylinder.

A new Guibal fan with wooden casing, diameter, 18 inches; center opening, 9 feet diameter; area of blades, 6x6 feet has been erected on the Skidmore airway.

Gilberton Colliery.

The Buck Mountain slope has been sunk another lift a distance of 89½ yards, and tunnels are being driven to the overlying veins. New hoisting machinery has also been erected. The breaker has been repaired and remodeled and fitted up with the latest improved machinery and appliances for preparing coal. An entire new plant of tubular boilers 6 feet diameter and 18 feet long has been put in place. In fact the colliery inside and outside has been entirely remodeled.

Boston Run Colliery.

The breaker at this colliery has been rebuilt and remodeled and is fitted up with the latest improved machinery. A cross-cut tunnel 23 yards has been driven from west top split to old west bottom split, second lift of the Mammoth vein.

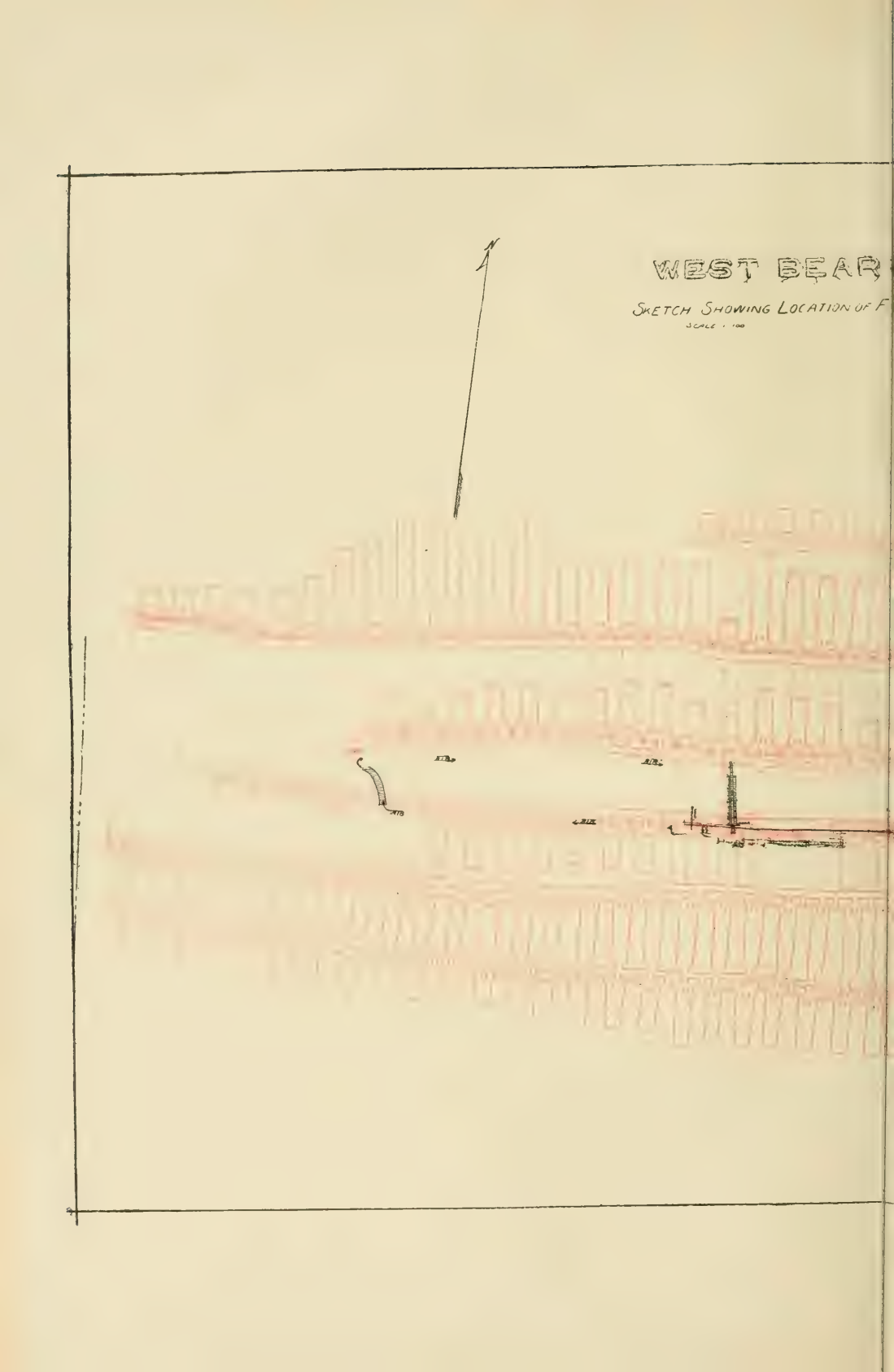
Elmwood Colliery.

An airway 98 yards long has been driven from east top split, third lift to second lift "Monkey" gangway tunnel, from Bottom split to

WEST BEAR

SKETCH SHOWING LOCATION OF F

SCALE : 100



RIDGE COLLIERY

WHICH OCCURRED ON FEBRUARY 18th 1895

ASHLAND JAN 23 1896

F. P. Weber
Resident Engineer

Skidmore vein third lift at foot of new hoisting slope 10½ yards long; tunnel from East Top split, third lift to Buck Mountain vein 70 yards.

Tunnel Ridge Colliery.

A tunnel from Skidmore to top split of Mammoth vein has been driven; total length, 74⅓ yards.

Report of West Bear Ridge Colliery Explosion.

West Bear Ridge colliery is opened on the lands of the Girard estate near Mahanoy Plane and leased by the Philadelphia and Reading Coal and Iron Company. The slope is sunk in the Mammoth vein on the south dip to the third lift, or as near to the footstool of the basin as the coal can practically be mined from. The angle of vein is sixty degrees, and the vein is from 30 to 40 feet thick. From the foot of slope two gangways are driven east and west on the south dip. From the foot of slope a tunnel is driven across the basin through the rock measures to the north dip, and two gangways driven east and west on the north dip. About sixty feet west of the tunnel connecting the two dips, an air tunnel is driven through the rock measures about fifteen vertical above the transportation openings. Between breasts 25 and 26 opened on north dip gangway or 1,630 feet west of connecting tunnel, a sectional transportation tunnel is driven, connecting both dips. Also a sectional air tunnel is driven immediately above this traffic tunnel, the thickness of rock measures between them being 15 feet.

Between breasts 36 and 37 a second sectional tunnel is driven connecting both dips. In course of constructing these two gangways west to their limit or line pillar, the vein in some sections has been proved to be more slippy and friable than in others, and being on a steep angle and near to the basin, the coal in some breasts will gravitate out by its own weight before they have been driven many yards up the pitch. These being the conditions in connection with mining coal from this colliery as well as some others, much trouble is experienced in maintaining the transportation openings and also the ventilating avenues. The main openings are the points of resistance on which the coal measures are gradually and continually thrusting, causing the timbers to break and the road beds to heave, and it is necessary to have a number of men at work, especially at night to keep the principal avenues open for traffic and ventilation. An idea of the difficulties to be surmounted may be formed when we state that the road beds are lowered from 50 to 60 feet before all the coal has been taken from them, which is accomplished in from five to six years. The men at this colliery all work with safety

lamps, and the quantity of air in circulation has always been unusually large for the number of men employed, which gave reason for all the colliery officials as well as myself to believe that work in the mine was safe for the men.

On the morning of the 18th of February, 1895, I went to St. Nicholas colliery where I met with Mr. John Veith, mine superintendent for the Philadelphia and Reading Coal and Iron Company and two of his assistants, Messrs. John Skeath and Reese Tasker, division and district superintendents, who had all met by appointment to visit Maple Hill colliery. I decided to accompany them and we were about to leave, when the operator handed a message to Mr. Veith, informing him that a serious explosion of gas had occurred at West Bear Ridge colliery and that the men had not been taken out. We at once drove to the colliery and got there about an hour after the explosion occurred, and descended the slope. At the foot of the slope we were met by Mr. Heber S. Thompson, superintendent and engineer for the Girard estate who was making one of his periodical inspection visits in company with his assistant Mr. John Granger, Mine Inspector of the collieries on the Girard lands, who were both glad to see us and astonished that we should have reached the colliery so soon after the occurrence. A consultation is always necessary however brief on such occasions and we were informed that all the men had gotten out with the exception of five, and all hopes of rescuing them alive had been given up. We then concluded to enter the third lift gangway, west north dip where the five men were said to be, and while traveling along this gangway explosions were frequent and more or less violent. Still we persevered as far as No. 19 breast. Mr. Veith who had charge of the exploring party was informed by some of the workmen that they were sure the five men were in the return airway opposite No. 19, which afterwards proved to be correct, and an attempt was made to get up the manway leading into the return airway, but the atmosphere was fouled to that extent that it was impossible to reach the entombed men and live, and so it was decided to make the necessary changes to reverse the air current. Men were at once put to work to erect a door across the gangway between 19 and 20 breasts so as to direct the current of air up the small chute opposite the pillar formed between 19 and 20 breasts, and into the return airway. A door was also placed on the south dip gangway between the return airway and foot of slope, and with some difficulty and risk, a few of the air batteries between the intake and outlet west of the first sectional tunnel south dip were displaced. These alterations were made so as to force the air current east through the return airway to air tunnel connecting with both dips, which would pass over the five men, who were subsequently

found between Nos. 16 and 19 breast. A split of the air current also passed west and north through the first sectional air tunnel to the south dip, down on and out of the south dip gangway to the opening, up to the fan; enough of air was also allowed to pass into the second sectional transportation tunnel and out the south dip gangway, which kept the gas from accumulating between the two sectional tunnels on either dip. After these alterations were completed, arrangements were made, that the door at foot of slope, and the one between Nos. 19 and 20 breast should be shut at one and the same time, and all were to retreat to the south dip, east gangway, and after waiting a short time we all concluded to again enter the north dip gangway where we found the change had worked satisfactorily, and in a short time we recovered the dead bodies of Peter J. Kline, Barney Reading, Joseph Pitz, Peter Greenback and Thomas Durken, and from the appearance of their bodies they must have been killed instantly.

In the return airway where those bodies were found, the smell of the atmosphere gave evidence that the explosion had ignited the timbers and coal, and the work of reopening the return airway westward was the next important work to be accomplished in order to prevent the fire gaining proportions which would necessitate drowning the colliery.

The fire was discovered to be burning in the return airway opposite the sectional air tunnel. A line of three inch pipe was ordered to be attached to the steam pump, from thence south through the tunnel and west through the gangway to the manway between breasts 26 and 27. A branch line was taken up this manway and the water forced on the fire from the inside. A branch line was also taken up between breasts 22 and 23, and the water forced on the fire from the outside, this method of fighting the fire proved to be a success, and it was extinguished in three weeks. Mr. Monroe Shreffler, division superintendent and his assistant, Mr. Elijah Gregory, district superintendent were in attendance night and day directing the work and with their men they displayed good judgment and courage.

When colliery explosions unfortunately occur and which result in loss of life, it gives cause for much speculation, and many opinions are expressed as to how they happen, but when we know the conditions of the colliery both before and after the explosion, together with the testimony received from those who may have escaped unhurt we are placed in a position to better determine how the accident occurred.

In connection with the explosion at West Bear Ridge colliery it was learned that breast No. 32 opened on the south dip gangway had "run," displacing a large quantity of gas into the return airway

which was carried along the air tunnel to the north dip return airway or "monkey," where these unfortunate men were working, along with nine others. The gas was forced through this airway at a high velocity by reason of 32 breast rushing, which forced the flame of the safety lamps through the gauze, igniting the exterior gas. From my examinations I concluded that the return airway to east of first sectional tunnel was the safety valve, so to speak, to the explosion as it was there the most damage was done to the colliery, and had the five unfortunate men been working with their companions on the west or inside of tunnel, I have every reason to believe they would have gotten out alive.

I herewith send a tracing which shows the colliery workings at the time of the explosion and the different points mentioned in the report of the accident.

TABLE 1.—*Showing location &c., of collieries, in the Sixth Anthracite District for the year ending December 31, 1895.*

Name of Colliery.	Name of Operator.	Location, Schuylkill County.	Name of Superintendent.	Post Office Address.
Boston Run,	Philadelphia and Reading Coal and Iron Company,	St. Nicholas,	John Veith,	Pottsville.
Bear Run,	Philadelphia and Reading Coal and Iron Company,	St. Nicholas,	John Veith,	Pottsville.
Ellangowan,	Philadelphia and Reading Coal and Iron Company,	Maple Dale,	John Veith,	Pottsville.
Elmwood,	Philadelphia and Reading Coal and Iron Company,	Mahanoy City,	John Veith,	Pottsville.
Girard,	Philadelphia and Reading Coal and Iron Company,	Girardville,	John Veith,	Pottsville.
Girard Mammoth,	Philadelphia and Reading Coal and Iron Company,	Raven Run,	John Veith,	Pottsville.
Gilberton,	Philadelphia and Reading Coal and Iron Company,	Gilberton,	John Veith,	Pottsville.
Hammond,	Philadelphia and Reading Coal and Iron Company,	Girardville,	John Veith,	Pottsville.
Indian Ridge,	Philadelphia and Reading Coal and Iron Company,	Shenandoah,	John Veith,	Pottsville.
Knickerbocker,	Philadelphia and Reading Coal and Iron Company,	Yatesville,	John Veith,	Pottsville.
Kohinoor,	Philadelphia and Reading Coal and Iron Company,	Shenandoah,	John Veith,	Pottsville.
Mahanoy City,	Philadelphia and Reading Coal and Iron Company,	Mahanoy City,	John Veith,	Pottsville.
North Mahanoy,	Philadelphia and Reading Coal and Iron Company,	Mahanoy City,	John Veith,	Pottsville.
St. Nicholas,	Philadelphia and Reading Coal and Iron Company,	St. Nicholas,	John Veith,	Pottsville.
Suffolk,	Philadelphia and Reading Coal and Iron Company,	St. Nicholas,	John Veith,	Pottsville.
Schuylkill,	Philadelphia and Reading Coal and Iron Company,	Mahanoy City,	John Veith,	Pottsville.
Shenandoah City,	Philadelphia and Reading Coal and Iron Company,	Shenandoah City,	John Veith,	Pottsville.
Turkey Run,	Philadelphia and Reading Coal and Iron Company,	Shenandoah City,	John Veith,	Pottsville.
Tunnel Ridge,	Philadelphia and Reading Coal and Iron Company,	Mahanoy City,	John Veith,	Pottsville.
Bear Ridge,	Philadelphia and Reading Coal and Iron Company,	Mahanoy Plane,	John Veith	Pottsville.
Maple Hill,	Philadelphia and Reading Coal and Iron Company,	St. Nicholas,	John Veith, ..	Pottsville.
Draper,	Philadelphia and Reading Coal and Iron Company,	Gilberton,	John Veith,	Pottsville.
Mahanoy Jig House,	Philadelphia and Reading Coal and Iron Company,	Mahanoy City,	John Veith,	Pottsville.
Packer No. 2,	Lehigh Valley Coal Company,	Lost Creek,	Col. D. P. Brown,	Lost Creek.
Packer No. 3,	Lehigh Valley Coal Company,	Brownsville,	Col. D. P. Brown,	Lost Creek.
Packer No. 4,	Lehigh Valley Coal Company,	Lost Creek,	Col. D. P. Brown,	Lost Creek.
Packer No. 5,	Lehigh Valley Coal Company,	Rapahannock,	Col. D. P. Brown,	Lost Creek.
Park No. 2,	Lentz, Lilly and Company,	Park Place,	Edward Reese,	Centralia.
Springdale,	Lentz, Lilly and Company,	Park Place,	Edward Reese,	Centralia.
Silver Brook No. 1,	Silver Brook Coal Company,	Silver Brook,	J. S. Wentz,	Mauch Chunk.
Silver Brook No. 2,	Silver Brook Coal Company,	Silver Brook,	J. S. Wentz,	Mauch Chunk.
Oneida,	Coxe Brothers,	Nelson City,	E. Kudlich,	Drifton.
William Penn,	Pennsylvania Coal Company,	Shaft P. O.,	William H. Lewis,	Shaft.
Buck Mountain,	Mill Creek Coal Company,	Buck Mountain,	T. D. Jones,	Hazleton.
Vulcan,	Mill Creek Coal Company,	Buck Mountain,	T. D. Jones,	Hazleton.
Kehleys' Run,	Thomas Coal Company,	Shenandoah,	Thomas Baird,	Shenandoah.
Glendon,*				Shenandoah.
Lawrence,	Gilbert Coal Company,	Mahanoy Plane,	William Miller,	Frackville.
Cambridge,	Cambridge Coal Company,	Shenandoah,	John McGinnis,	Frackville.
Furnace,	Seamon Bros. and Gerber,	Gilberton,	Mahlon Gerber,	Tamaqua.
Seaman washery,	Seaman Brothers,	Gilberton,	Jesse Major,	Shenandoah.
Stoddart washery,	Stoddart Coal Company,	Gilberton,	J. I. Hollenbeck,	Pottsville.
Honey Brook No. 4,	Lehigh and Wilkes-Barre Coal Company,	Audenreid,	D. R. Roberts,	Audenreid.
Honey Brook No. 5,	Lehigh and Wilkes-Barre Coal Company,	Audenreid,	D. R. Roberts,	Audenreid.

* Abandoned

Table No. 2.—*Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder, etc., used in the Sixth Anthracite District for the year ending December 31, 1895.*

Names of Collieries.	Location.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Pounds of dynamite used.
Boston Run,	St. Nicholas,	93,214	88,776	139.3	318	1	.....	1,053	26	50	.....	12,225
Bear Run,	St. Nicholas,	123,153	117,289	215	482	1	4	4,943	24	61	.....	10,368
Ellangowan,	Maple Dale,	346,060	329,851	214	814	.....	5	9,184	22	105	1	6,863
Elmwood,	Mahanoy City,	108,554	103,385	216	352	.....	1	3,118	16	35	1	4,455
Girard,	Girardville,	29,003	28,003	88	87	.....	.....	58	39	11	.....	2,125
Girard Mammoth,	Raven Run,	57,030	54,315	158	243	.....	2	1,152	24	42	.....	2,780
Gilberton,	Gilberton,	41,531	39,554	65	336	.....	.....	1,745	48	25	.....	7,503
Hammond,	Girardville,	186,766	177,873	214	455	1	.....	3,911	38	56	1	6,621
Indian Ridge,	Shenandoah,	180,229	171,646	214	496	2	6	5,544	8	54	1	3,739
Knickerbocker,	Yatesville,	206,328	196,503	210	565	4	9	4,639	36	49	2	19,937
Kohinoor,	Shenandoah,	156,453	149,003	215	433	.....	2	4,213	33	46	1	1,811
Mahanoy City,	Mahanoy City,	160,408	152,770	215	427	1	1	4,021	26	50	.....	962
St. Nicholas,	St. Nicholas,	163,352	155,574	217	311	.....	1	2,899	26	42	1	6,895
Suffolk,	St. Nicholas,	266,834	256,509	215	658	2	.....	7,518	20	71	1	6,285
Schuylkill,	Mahanoy City,	125,084	119,128	214	347	.....	1	3,050	20	38	.....	1,373
Shenandoah City,	Shenandoah,	147,820	140,781	149	451	1	.....	3,571	36	59	1	3,182
Turkey Run,	Shenandoah,	200,017	190,493	215	470	1	1	4,471	14	54	1	3,970
Tunnel Ridge,	Mahanoy City,	164,060	156,248	217	428	2	1	4,053	16	52	.....	3,043
North Mahanoy,	Mahanoy City,	216,642	206,326	215	609	4	4	5,876	8	57	1	3,389
Bear Ridge,	Mahanoy Plane,	282,929	272,314	214	787	5	2	2,285	46	80	1	17,134
West Shenandoah,	Shenandoah,	120,130	114,416	197	364	1	.....	2,449	28	44	.....	2,340
Maple Hill,	St. Nicholas,	476,318	453,637	216	1,094	2	7	13,974	26	73	.....	26,918
Draper,	Gilberton,	134,316	127,920	209	481	1	.....	3,104	22	37	.....	20,735
Packer No. 2,	Lost Creek,	124,731	110,996	174.2	503	3	3	1,259	22	29	.....	13,681
Packer No. 3,	Brownsville,	194,536	183,248	202.3	486	3	4	3,189	27	35	.....	3,631
Packer No. 4,	Lost Creek,	126,842	108,729	137.3	384	3	2	2,754	30	31	.....	4,442
Packer No. 5,	Rappahannock,	195,199	179,341	191.2	678	1	4	4,484	32	40	.....	3,900
Honey Brook No. 4,	Audenreid,	228,944	188,050	217	669	1	1	5,893	56	97	**1	4,883
Honey Brook No. 5,	Audenreid,	283,989	232,556	214	1,026	3	.....	5,111	48	60	**4	30,159

Park No. 2,	Park Place,	297,434	269,050	199	652	3	1	8,101	43	73	2	2,050
Springdale,	Park Place,	136,281	121,763	202	415	1	3	1,838	30	51	.....	7,900
Silver Brook No. 1,*	Silver Brook,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Silver Brook No. 2,	Silver Brook,	257,000	233,715	257	475	.....	3	3,508	14	23	1	14,900
William Penn,	Shaft P. O.,	274,824	247,291	252	625	3	7	5,025	60	63	.....	10,000
Oneida,	Sheppton,	307,936	264,408	296	776	5	7	7,369	45	72	4	6,637
Kehley's Run,	Shenandoah,	88,430	85,421	203	245	1	3	3,390	24	29	.....	9,350
Buck Mountain,	Buckmountain,	184,687	173,737	187.9	385	1	2	5,370	26	50	.....	1,789
Vulcan,	Buckmountain,	42,610	37,135	48.8	321	.....	.....	1,188	16	26	.....	2,008
Glendon,*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Primrose,	Mahanoy City,	.....	.....	.....	294	1	.....	206	16	25	.....	5,445
Lawrence,	Mahanoy Plane,	136,284	108,384	262	406	2	3	240	46	39	.....	21,600
Cambridge,	Shenandoah,	30,522	29,177	216	100	.....	.....	1,320	3	8	.....	500
Furnace,	Gilberton,	43,477	41,903	257	81	.....	.....	380	6	10	.....	9,275
Yatesville Jigs,	Yatesville,	17,860	17,860	108	34	.....	.....	.....	.....	2	.....	.....
St. Nicholas Jigs,	St. Nicholas,	51,253	51,253	156	66	.....	.....	.....	5	2	.....	.....
Stoddart Washery,	Gilberton,	69,937	65,714	235	80	.....	.....	.....	5	2	.....	.....
Seaman Washery,	Gilberton,	43,367	41,867	246	75	.....	.....	.....	4	2	1	.....
Carson Washery,	Audenried,	15,605	15,605	70	70	.....	.....	.....	4	5	.....	.....
Monarch Washery,	Audenried,	26,916	26,916	103	60	.....	.....	.....	4	6	.....	.....
Plank Ridge Jigs,	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
Mahanoy Jig House,	.....	.....	.....	.....	95	.....	.....	.....	.....	.....	.....	.....
Total,	.....	7,164,895	6,636,433	198.9	19,810	59	85	157,476	1,168	1,979	26	335,895

* Abandoned. ** Outside.

The average number of days worked at all the collieries was 198.9; of the total shipments from the district 201,355 tons were shipped from the washeries.

TABLE NO. 3.— *Showing the number of each class of employes at each colliery in the Sixth Anthracite District during the year 1895.*

Names of Collieries.	Occupation of Persons Employed Inside.							Occupations of Persons Employed Outside.							
	Inside foremen.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Door boys and helpers.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All other company men.	Superintendents, bookkeepers and clerks.	Total outside.	Grand total inside and outside.
Bear Run,	5	39	40	46	8	1	139	2	27	15	64	69	2	179	318
Boston Run,	6	92	114	79	25	4	320	2	4	11	83	60	2	162	482
Draper,	5	96	64	116	17	4	302	1	6	29	81	60	2	179	481
Ellangowan,	10	169	167	92	40	10	488	2	10	20	200	91	3	326	814
Elmwood,	4	86	39	65	13	6	213	1	4	14	76	43	1	139	352
Girard,	1	6	2	18	2	.....	29	1	2	20	15	18	2	58	87
Girard Mammoth,	2	42	8	47	12	1	112	1	4	20	57	48	1	131	243
Gilberton,	6	43	26	77	2	2	156	2	29	21	34	92	2	180	336
Hammond,	6	83	21	97	17	6	230	2	7	25	116	73	2	225	455
Indian Ridge,	7	122	75	36	26	6	272	2	8	23	132	57	2	224	496
Knickerbocker,	7	90	45	64	6	1	213	2	10	26	210	102	2	352	565
Kohinoor,	6	141	48	35	28	7	165	3	8	24	76	55	2	168	423
Mahanoy City,	3	108	46	62	23	9	251	2	5	22	93	51	3	176	427
North Mahanoy,	4	130	99	75	34	10	352	2	7	19	138	89	2	257	609
St. Nicholas,	4	66	32	41	11	6	154	.....	5	12	71	67	2	157	311
Suffolk,	5	156	125	93	17	9	405	2	6	17	108	122	3	253	658
Schuylkill,	5	94	28	61	19	6	213	1	6	13	77	36	1	134	347
Shenandoah City,	5	108	41	37	21	7	219	2	41	21	80	86	2	232	451
Turkey Run,	4	134	54	66	21	13	292	2	8	10	93	63	2	178	470
Tunnel Ridge,	4	103	34	70	27	16	254	1	4	15	99	53	2	174	428
Bear Ridge,	9	145	81	145	31	14	425	2	12	32	178	136	2	362	787
West Shenandoah,	5	99	42	44	17	3	210	2	5	15	69	62	1	154	364
Maple Hill,	8	353	104	189	32	19	705	2	20	24	238	102	3	389	1,094
Yatesville Jig House,	.....	.....	.....	.....	.....	.....	.....	.....	3	3	4	24	.....	34	34
Plank Ridge Jigs,	.....	.....	.....	.....	.....	.....	.....	1	3	3	4	.....	.....	1	1
St. Nicholas Jigs,	.....	.....	.....	.....	.....	.....	.....	1	4	5	15	40	1	66	66
Packer No. 2,	5	47	43	77	9	4	185	1	9	13	46	47	2	118	303

Packer No. 3,	4	148	77	60	13	5	307	1	11	15	73	76	3	179	486
Packer No. 4,	4	78	87	55	20	3	247	1	10	13	57	54	2	137	384
Packer No. 5,	7	191	88	95	23	5	409	1	9	13	130	114	2	269	678
Primrose,	1	58	45	30	20	7	161	1	30	11	68	22	1	133	294
Honey Brook No. 4,	2	156	129	103	36	8	434	2	12	33	111	76	1	235	669
Honey Brook No. 5,	3	70	67	250	22	6	418	2	14	39	107	148	1	311	729
Park No. 2,	2	171	135	65	53	4	430	1	15	24	120	58	4	222	652
Springdale,	2	69	37	62	25	5	200	1	11	26	109	65	3	215	415
Silver Brook No. 1,*															
Silver Brook No. 2,	2	76	54	21	10	4	167	3	9	12	124	156	4	308	475
Buck Mountain,	1	139	48	35	22	2	247	1	7	15	66	42	7	138	385
Vulcan,	1	125	48	9	14	5	202	1	6	10	57	39	6	119	321
Kehley's Run,	3	62	10	41	12	2	130	1	6	11	49	46	2	115	245
Glendon,*															
Lawrence,	1	69	48	75	16	11	220	1	5	34	85	59	2	186	406
Oneida,	7	240	22	95	33	19	416	3	23	31	159	142	2	360	776
Cambridge,	1	30	17	15	4	.....	67	1	2	3	16	10	1	33	100
Furnace,	1	15	10	8	5	.....	39	1	2	3	18	17	1	42	81
Mahanoy Jig House,	.....	.....	.....	.....	.....	.....	.....	1	3	4	48	37	2	95	95
Stoddart Washery,	.....	.....	.....	.....	.....	.....	.....	1	3	4	26	44	2	80	80
Monarch Washery,	.....	.....	.....	.....	.....	.....	.....	1	2	2	24	30	1	60	60
Carson Washery,	.....	.....	.....	.....	.....	.....	.....	1	2	1	25	40	1	70	70
Seaman Washery,	.....	.....	.....	.....	.....	.....	.....	1	3	5	12	53	1	75	75
William Penn,	4	146	130	58	24	17	379	3	15	16	118	93	5	250	629
Honey Brook 5, clay strippings,,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	297	.....	297	297
Total,	172	4,389	2,430	2,809	810	267	10,877	72	454	794	4,050	3,464	103	8,937	19,814

*Abandoned.

14--10--95

TABLE NO. 4.—*List of fatal accidents that occurred in and about the mines of the Sixth Anthracite District for the year ending December 31, 1895.*

Date of accident.	Name of Person Killed.	Age.	Married or single.	No. of Orphans.	Name of Colliery.	Location—Schuylkill County.	Date of investigation.	Nature and Cause of Accident in Brief.
Jan. 7	Andrew Minich, ...	32	S.	...	North Mahanoy, ...	Mahanoy City, ...	Jan 8	Fatally injured by a piece of coal he was barring down; died on the 9th; Hungarian miner.
11	Michael Elick, ...	19	S.	....	Oneida No. 2 slope, ...	Shenpton, ...	14	Killed between door and car; the team stopped and he went out for the door-boy to assist him; the team again started out, the driver being on front of car, but the door-boy forgot to open the door; Hungarian, driver.
14	Michael Sheppis, ...	22	S.	....	Packer No. 2, ...	Lost Creek, ...	15	Killed in No. 21 chute, East Mammoth, 4th lifth. A large lump of coal rolled down the chute, which discharged the battery, displacing a large piece of coal. Nationality, Polish, starter.
19	Peter Saton, ...	30	S.	....	William Penn, ...	Shaft, ...	21	Fatally injured and died on the 26th in the Miners' Hospital. He was being hoisted up the Buck Mountain slope after quitting work, and he was sitting on the spreader chain; the engineer hoisted the truck over the knuckle, causing it to leave the track and run over him. The engineer was responsible in making the over hoist, and the men were alike responsible for not getting inside the truck. Italian rock miner.
Feb. 7	Alexander Martin, ...	42	M.	....	Maple Hill, ...	St. Nicholas, ...	Feb. 8	Killed; he fell off cage while being hoisted to top of shaft. Polish.
14	Dominick Ligavy, ...	33	M.	....	Honey Brook No. 5, ...	Audenreid, ...	16	Killed at No. 10 strippings by clay rolling on him; Italian, outside laborer.

	18	Peter J. Kline,	50	M.	6	Bear Ridge,	Mahanoy plane,		18	German miner, Those five men were
	18	Barney Reading,	48	M.	5	Bear Ridge,	Mahanoy plane,		18	German miner, working in north dip
	18	Joseph Pitz,	24	S.	....	Bear Ridge,	Mahanoy plane,		18	German miner, "Monkey" when "breast"
	18	Peter Greenback,	21	S.	....	Bear Ridge,	Mahanoy plane,		18	German laborer, 32 of the south dip rushed
	18	Thomas Durkin,	34	M.	...	Bear Ridge,	Mahanoy plane,		18	Irish laborer, displacing a large quantity of gas, forcing it through the sectional return air tunnel at a very high velocity, which forced the flame of the safety through the gauze of the lamp, igniting the exterior gas, killing the five men.
	19	Frank Remato,	35	S.	....	No. 3 west clay stripping, Honey Brook.	Audenreid,		20	Had ignited the fuse of three shots; one missed and he again lit it and just as he was leaving two shots fired, killing him instantly. Italian foreman.
	21	Felix Adrick,	40	M.	3	William Penn,	Shaft,		22	Fatally injured by an explosion of gas; died in the Miners' Hospital on the 24th. Pole miner.
Mar.	4	Michael Brown,	24	S.	....	Packer No. 4,	Lost Creek,	Mar.	5	Fatally injured by an explosion of gas in breast 20; died on the 13th. He went into this finished breast with a naked lamp for old plank. William Morrison, the fire boss, should have seen that no standing gas was there. Irish miner.
	4	John Youzinski,	27	M.	....	Suffolk,	St. Nicholas,		5	Killed by a fall of top coal that he was in the act of barring down. Polish miner.
	12	Adam Litchinsky,	52	M.	4	Buck Mountain,	Buck Mountain,		14	Killed by a fall of coal in breast No. 13, fourth lift, west gangway, Buck Mountain vein. The miner allowed him to go up to face after firing a shot before he had taken the loose coal down. Polish laborer.
	14	William Ambrosius,	30	S.	....	Draper,	Gilberton,		15	Fatally injured by a fall of coal; died same evening in the Miners' Hospital. Polish miner.
	20	Charles Chuck,	27	S.	....	Kehley's Run,	Shenandoah,		20	Killed by a blast; did not get far enough away and was struck by flying coal. Polish miner.
	27	Jos. Baltruszaitis,	27	S.	....	William Penn,	Shaft,		28	Killed by a fall of top rock in breast 47, West Buck Mountain water level drift. Polish laborer.
April	2	Josiah Mayer,	56	M.	....	Packer No. 4,	Lost Creek,	April	3	Killed by a fall of top coal; English miner.
	3	Stine Gonoski,	32	S.	....	Tunnel Ridge,	Mahanoy City,		4	Killed by a fall of "clod;" he fired a shot which knocked out a prop, and went up to face of breast to push coal down on sheet iron before replacing the prop. Polish miner.
	16	Andrew Dwyer,	25	S	....	North Mahanoy,	Mahanoy City,		17	Killed by a fall of top coal. Hungarian laborer.
May	4	Stine Matscavage,	2[illegible]	S	....	Knickerbocker,	Shenandoah,	May	6	Killed by a fall of coal he was drilling a hole under. Polish miner.

TABLE No. 4.—*Continued.*

Date of accident.	Name of Person Killed.	Age.	Married or single.	No. of Orphans.	Name of Colliery.	Location--Schuylkill County.	Date of investigation.	Nature and Cause of Accident in Brief.
June 6	John Kires,	23	S.	....	Packer No. 2,	Lost Creek,	June 7	Killed by a fall of coal; Polish, laborer.
23	Andrew Luther,	24	M.	....	Oneida,	Sheppton,	24	He was loading mud on Sunday out of a mud dam, and tried to cross the track in front of a locomotive, which ran over him and was instantly killed. Slavonian, slate picker.
25	Martin Lawlor,	34	S.	....	Suffolk,	St. Nicholas,	26	Fatally injured by a fall of coal in gangway; died on his way home. Irish, miner.
26	Simon Bersnfsky,	30	S.	....	Packer No. 3,	Brownsville,	27	Fatally injured by a fall of slate; died in Miners' Hospital in the 9th August. Polish, miner.
July 3	Daniel O'Donnoll,	21	S.	....	Primrose,	Mahanoy City,	July 4	Killed by a fall of rock from upper side of tunnel in course of construction under slope to connect west with east side. American, laborer.
10	Bartley Cosmosky,	23	S.	....	Turkey Run,	Shenandoah,	11	Fatally injured by a piece of coal falling on his head; died the following morning; Polish, miner.
17	Enock Grauer,	19	S.	...	West Shenandoah,	Shenandoah,	18	Killed while coming out of gangway with a trip of cars. The mule kicked, causing him to fall off the car, and he was dragged for some distance along the track; Polish, driver.
22	Enock Melencavage,	29	S.	....	Knickerbocker,	Shenandoah,	23	Fatally burned by powder; died in Miners' Hospital August 1st,; Polish, miner.
23	John Guski,	30	S.	....	North Mahanoy,	Mahanoy City,	24	Fatally burned by powder; died in the Miners' Hospital August 3d; Polish, miner.
26	Jos. Smith,	28	S.	....	Packer No. 3,	Brownsville,	27	Fatally injured by a spark from his lamp igniting a keg of powder; died on the 8th of August in the Miners' Hospital; Polish, miner.

Aug.	16	Patrick Howe,	35	M.	4	Hammond,	Girardville,	Aug.	17	Killed by an explosion of gas; American, miner.
	26	John Rubleskie,	45	M.	....	Shenandoah City,	Shenandoah,		26	Killed; the dirt plane rope broke and he was standing right in front of the tracks instead of to the side when the gunboat descended, killing him instantly; Hungarian, general outside laborer.
Sept.	6	Jos. Socolosky,	29	S.	....	Bear Run,	St. Nicholas,	Sept.	7	Killed by a fall of coal; Polish, miner.
	16	William E. Burke,	35	M.	4	Park No. 3 slope,	Park Place,		17	Fatally injured by a blast of dynamite; died on the 17th; American, miner.
	20	Charles Duby,	16	S.	....	North Mahanoy,	Mahanoy City,		21	Fatally injured by falling into the scraper line; died same day; American, slate picker.
	23	Jos. Soffranski,	46	M.	....	Honey Brook No. 4,	Audenreid,		25	Killed by a fall of clod; Polish, miner.
Oct.	1	Samuel Kanp,	32	S.	....	Lawrence,	Mahanoy plane,	Oct.	2	While working with Martin Nash the chargeman repairing slope, he fell down the slope a distance of 400 feet on a pitch 50 degrees, and was instantly killed; American, laborer.
	10	John Wurhat,	25	S.	....	Park No. 3 slope,	Park Place,		11	Fatally burned by powder; died on the 12th; while making a cartridge a spark from his lamp which was on his head, fell into the keg of powder, which cost him his life; Hungarian, miner.
	19	George Carroll,	34	M.	6	Knickerbocker,	Shenandoah,		21	Fatally injured by an explosion of gas; died in the miners' hospital on the 22d; Polish, miner.
	21	Albert D. Frane,	42	M.	....	Maple Hill,	St. Nicholas,		22	Killed by a fall of "clod" in gangway; German, miner.
	22	Peter Becker,	35	M.	2	Tunnel Ridge,	Mahanoy City,		28	Fatally injured and died on the 24th; he, with others, was descending the slope in the morning when one of the collars fell down, derailing the cage, causing him to roll down a distance of 50 feet; German, miner.
	30	James Sweeney,	50	M.	4	Park No. 3 slope,	Park Place,		31	Killed by a fall of coal; Irish, miner.
	31	Edward Shaeffer,	25	M.	2	Lawrence,	Mahanoy plane,	Nov.	1	Killed by a fall of coal in gangway; Shaeffer was a general workman and was acting as runner for a day; while coming out with a trip he stood on the bumper of the last car and it being too high loaded, knocked a collar down causing about two cars of coal to fall on him; American, general worker.
Nov.	6	William Lewis,	16	S.	....	Indian Ridge,	Shenandoah,		7	Fell into the monkey rolls and was so badly mangled that he died the same evening; Welsh, slate picker.
	8	Powell Briggas,	38	S.	....	Packer No. 4,	Lost Creek,		9	Killed by a fall of coal; Polish, miner.
	12	Angelo Pollam,	35	M	2	No. 8 gravity slope, Honey Brook No. 7,	Audenreid,		14	Killed by a fall of clay; Italian, laborer.

TABLE No. 4.—*Continued.*

Date of accident.	Name of Person Injured.	Age.	Married or single.	No. of Orphans.	Name of Colliery.	Location--Schuylkill County.	Date of investigation.	Nature and Cause of Accident in Brief.
Nov. 13	Edward Cooper,	28	M.	1	Springdale,	Mahanoy City,	Nov. 15	Fatally injured between cars; died on the 17th; American, miner.
15	Anthony Kiritis,	35	M.	3	Packer No. 3,	Brownsville,	16	Killed by a fall of rock; Polish, miner.
16	Mike Fesko,	22	S.	...	Oneida,	Sheppton,	18	Killed; fell into the scraper line; Polish, slate picker.
23	George Smith,	36	M.	2	Packer No. 5 slope,	Rappahannock,	25	Killed; going back to a blast of dynamite too soon; Polish, miner.
30	Joseph Woochinsky,	35	M.	2	Packer No. 2,	Lost Creek,	Dec. 2	Killed by a rush of coal and rock in chute; Polish, miner.
Dec. 6	Andrew Hornick,	38	M.	2	Oneida,	Sheppton,	10	Killed by a fall of slate; Polish, miner.
7	Frank Hines,	28	S.	....	Knickerbocker,	Shenandoah,	7	While repairing pulleys on slope road at night he fell down a distance of 300 feet and was instantly killed; American, laborer.
10	Wassel Sulsin,	20	S.	....	Boston Run,	St. Nicholas,		While repairing road at stripping, he fell down the bank on his head; died on the 12th in the Miners' Hospital; Hungarian, laborer.
12	Frank Morris,	45	M.	6	Indian Ridge,	Shenandoah,	23	Fatally burned by an explosion of gas; Polish, miner.
23	William Youthavage,	37	S.	....	Mahanoy City,	Mahanoy City,	24	Killed by a fall of coal; Polish, miner.

Table No. 5.—*List of non-fatal accidents that occurred in and about the mines of the Sixth Anthracite District for the year ending December 31, 1895.*

Date of accident.	Name of Person Injured.	Age.	Married or single.	No. of Children.	Name of Colliery.	Location--Schuylkill County.	Date of investigation.	Nature and Cause of Accident in Brief.
Jan. 1	Andrew Minich,	28	S.	....	North Mahanoy,	Mahanoy City,	Jan. 2	Hungarian laborer; leg fractured by a fall of top coal.
5	Angelo Meinceus,	27	S.	....	Honey Brook No. 5, No. 10 strippings.	Audenreid,	7	Italian; face and head severely cut by a blast; he was cleaning a charge of dynamite which had failed to explode, using a drill, when the dynamite exploded.
14	William Botoskie,	27	S.	....	William Penn,	Shaft P. O.,	15	Face severely injured by a blast exploding on him; Polish miner.
19	Louis Bergau,	32	S.	....	William Penn,	Shaft P. O.,	21	Seriously injured about the body and legs; he was sitting on the spreader chain while being hoisted up the slope, and the engineer made a over-hoist causing the truck to leave the track and was run over; Italian, rock miner.
Feb. 1	Harvey Stettler,	15	....	....	Maple Hill,	St. Nicholas,	Feb. 16	Both hands severely lacerated by being caught in the breaker scraper line; his lamp fell and he attempted to get it while the machinery was in motion.
13	Fred Reshelderfer,	21	S.	....	Girard Mammoth,	Raven Run,	14	German; was engaged as plane man, and while uncoupling cars his head was caught between the cars.
14	Mat. Lobinski,	28	S.	....	Kohinoor,	Shenandoah,	15	Polish, miner; leg fractured by a fall of top slate.
14	William Meeds,	20	S.	...	Bear Run,	St. Nicholas,	16	German, driver; body seriously squeezed between cars while in the act of uncoupling.
16	Patrick Noone,	24	S.	....	Packer No. 4,	Lost Creek,	18	Irish, footman; foot mashed and shoulder-blade broken; in getting off the cars nearing bottom of slope he slipped and fell under them.

TABLE NO. 5.—*Continued.*

Date of accident.	Name of Person Injured.	Age.	Married or single.	No. of Children.	Name of Colliery.	Location--Schuylkill County.	Date of investigation.	Nature and Cause of Accident in Brief.
Feb. 21	Thomas D. James, ...	50	M.	8	Wm. Penn, ...	Shaft P. O., ...	Feb. 23	Welsh, fire boss; face and hands severely burned by an explosion of gas; went up in breast without a safety lamp.
21	George Rupchinski,.....	26	M.	1	Wm. Penn, ...	Shaft P. O., ...	23	Polish, laborer; face and hands severely burned by an explosion of gas, same time as James.
21	Mich. Roniski, ...	23	S.	....	Indian Ridge, ...	Shenandoah, ...	23	Polish, laborer; leg fractured "buggy" jumped the track while he was pushing it out and fell on his leg.
Mar. 1	Thomas Scanlan, ...	38	M.	4	Springdale, ...	Mahanoy City, ...	Mar. 2	American, driver; leg fractured; squeezed between door and car.
6	Joseph Sedusky, ...	28	S.	....	Ellangowan, ...	Maple Dale, ...	7	Polish, miner; leg fractured; he prepared a blast in chute which was up from gangway 24 feet on an angle of 16 degrees and he shortened the squib; by so doing he failed to reach a place of safety.
7	Thomas Soeklusky, ...	34	S.	....	Maple Hill, ...	St. Nicholas, ...	9	Polish miner; body severely injured; struck by coal flying from a shot in the neighboring breast.
8	Stiney Davis, ...	25	S.	....	Maple Hill, ...	St. Nicholas, ...	9	Polish miner; leg fractured by a fall of bony coal.
14	Charles Mulheron, ...	17	S.	...	Packer No. 5, ...	Rappahanock, ...	16	Irish, spragger; arm crushed between shoulder and elbow; he was trying to pick up a dragging coupling and was caught by the car following.
16	James Evans, ...	23	S.	....	North Mahanoy, ...	Mahanoy City, ...	18	Welsh, loader; he attempted to couple cars while in motion and his head was squeezed between cars; he is working again.
19	John Kuanitz, ...	27	M.	....	Honey Brook No. 5, No. 1 stripping	Audenreid, ...	21	Hungarian, topman; leg cut off; stepping from a car he slipped and fell under it; investigation made as to the cause of this accident proved that he was under the influence of whisky given him by a friend who came to visit him while at work.

	20	William Shenavitz,	28	M	3	Packer No. 3,	Brownsville,	Polish, miner; leg fractured by a fall of coal.
	21	John Matthews,	58	M	7	Indian Ridge,	Shenandoah,	Irish, miner; hips and back severely injured by a fall of clod in breast No. 6, Buck Mountain vein.
	25	Anthony Potochames,	28	S.	....	Bear Run,	St. Nicholas,	Polish, laborer; severely squeezed about the body by a fall of rock.
	30	Austin Gaughan,	27	S.	....	St. Nicholas,	St. Nicholas,	Irish miner; leg cut off by being crushed between cars.
April	6	Charles Burke,	28	S.	....	Ellan Gowan,	Maple Dale,	Polish miner; seriously hurt about the face and head by a premature blast; he did not give sufficient time for the blast to go off.
	10	Aud. Mack,	24	M.	1	Packer No. 2,	Lost Creek,	American, driver; bruised about the body; while unhitching a mule he slipped and fell under the cars.
May	7	Mich. Daviditus,	....	....	....	Buck Mountain,	Buck Mountain,	Pole; head injured; while being hoisted up slope he put his head over the side of the car striking the slope timber; he was not an employe at this colliery, but came to take the place of a friend for a day; the foreman not knowing he was in the colliery.
	7	Aud. Lokitus,	32	S.	....	Elmwood,	Mahanoy City,	Polish, miner; leg fractured by a fall of coal from face of breast.
	22	John Irinots,	58	M.	....	Honey Brook No. 5, east strippings.	Audenreid,	Italian laborer; leg fractured; a piece of rock rolled down from face of stripping on him.
	22	Anth. Kutcofski,	30	M.	1	Honey Brook No. 4,	Audenreid,	Polish, miner; leg fractured by a fall of coal.
	23	Joe Smith,	28	S.	....	Packer No. 3,	Brownsville,	Polish miner; leg fractured by a fall of coal.
June	19	Michael Sulava,	28	M.	2	Honey Brook No. 4,	Audenreid,	Slavonian, laborer; spine said to be dislocated; he was unloading heavy mine timber from a railroad car and one of the sticks rolled on him; he is again working.
	20	Joe Ralscopsky,	28	S.	....	Packer No. 3,	Brownsville,	Polish, miner; leg fractured by a fall of top slate.
	27	John Lannon,	....	....	....	Knickerbocker,	Yatesville,	American, miner; side and face bruised by a premature blast.
July	5	Andrew Miller,	52	M.	3	William Penn,	Shaft P. O.,	Leg fractured by a fall of coal; German, miner.
	12	Sandren Sabo,	16	....	....	Honey Brook No. 5,	Audenreid,	Leg crushed; car ran over him; driver; nationality, Hungarian.
	24	Thomas Bevan,	20	S.	....	Springdale,	Mahanoy City,	Arm fractured, caught between car and chute; driver, Welsh.
	25	Paul Swoth,	31	S.	....	Mahanoy City,	Mahanoy City,	Leg fractured by a fall of coal; Pole, miner.
	22	Polish, miner; leg fractured by a fall of coal.						
	22	Irish, miner; hips and back severely injured by a fall of clod in breast No. 6, Buck Mountain vein.						
	27	Polish, laborer; severely squeezed about the body by a fall of rock.						
April	1	Irish miner; leg cut off by being crushed between cars.						
	8	Polish miner; seriously hurt about the face and head by a premature blast; he did not give sufficient time for the blast to go off.						
	12	American, driver; bruised about the body; while unhitching a mule he slipped and fell under the cars.						
May	8	Pole; head injured; while being hoisted up slope he put his head over the side of the car striking the slope timber; he was not an employe at this colliery, but came to take the place of a friend for a day; the foreman not knowing he was in the colliery.						
	9	Polish, miner; leg fractured by a fall of coal from face of breast.						
	24	Italian laborer; leg fractured; a piece of rock rolled down from face of stripping on him.						
	24	Polish, miner; leg fractured by a fall of coal.						
	25	Polish miner; leg fractured by a fall of coal.						
June	21	Slavonian, laborer; spine said to be dislocated; he was unloading heavy mine timber from a railroad car and one of the sticks rolled on him; he is again working.						
	22	Polish, miner; leg fractured by a fall of top slate.						
	29	American, miner; side and face bruised by a premature blast.						
July	6	Leg fractured by a fall of coal; German, miner.						
	13	Leg crushed; car ran over him; driver; nationality, Hungarian.						
	25	Arm fractured, caught between car and chute; driver, Welsh.						
	27	Leg fractured by a fall of coal; Pole, miner.						

TABLE NO 5.—*Continued.*

Date of accident.	Name of Person Injured.	Age.	Married or single.	No. of Children.	Name of Colliery.	Location--Schuylkill County.	Date of investigation.	Nature and Cause of Accident in Brief.
July 27	Albert Smith,	21	S.	....	Indian Ridge,	Shenandoah,	July 29	Arm cut off; lost control of his engine, causing the fly wheel segments to detach and he was struck by one of them; engineer, German.
29	Andrew Petcosh,	23	S.	....	Oneida No. 3,	Sheppton,	30	Arm fractured by a fall of coal; Hungarian, miner.
Aug. 10	George Williams,	40	M.	....	Packer No. 5,	Rappahannock,	Aug. 12	Burned on face and hands severely by an explosion of gas; his lamp went out and he struck a match to re-light it; fire boss, Welsh.
16	Patrick McInery,	....	....	....	Tunnel Ridge,	Mahanoy City,	19	Arm fractured; he was starting the breast battery when the loose coal rushed on him; starter, Irish.
16	Joseph Brozu,	28	S.	....	Silver Brook,	Silver Brook,	20	Leg fractured, riding up plane on empty car, fell off and was struck by a loaded car; Austrian, laborer.
17	Mart Taughet,	35	...	....	Bear Ridge,	Mahanoy Plane,	19	Bruised and cut about the body; went back too soon to shot which he had ignited, and it exploded on him; American, miner.
19	Charles Trumble,	32	S.	....	Schuylkill county,	Mahanoy City,	21	Severely injured by a fall of coal; American, miner.
20	John Chisnell,	22	S.	....	Bear Ridge,	Mahanoy plane,	22	Skull fractured; kicked by a mule; American, driver.
22	George Hering,	38	M.	....	Indian Ridge,	Shenandoah,	24	Leg fractured by a fall of coal; German, miner.
24	Harry Reilly,	19	S.	....	Maple Hill,	St. Nicholas,	26	Shoulders severely squeezed between car and "brattice," his clothing caught on a nail; Irish, driver.
27	Adam Bileto,	32	S.	....	Bear Run,	St. Nicholas,	28	Leg fractured; struck by a piece of coal from shot; Pole, miner.
29	Andrew Ceryora,	35	M.	5	Kohinoor,	Shenandoah,	31	Leg fractured by a fall of coal; Pole, miner.

Sept.	12	Peter Cavinsky,	29	M.	1	Packer No. 3,	Brownsville,	Sept.	14	Arm fractured by a fall of coal; Pole, miner.
	16	Frank Orotchki,	24	S.	...	Honey Brook No. 4,	Audenreid,		17	Arm fractured; caught between car and locomotive; brakeman, Hungarian.
	26	Andrew Elacupski,	28	S.	...	Ellangowan,	Maple Dale,		28	Leg fractured by a fall of Coal; Pole, laborer.
Oct.	18	Andrew Wallasonis,	30	S.	...	Indian Ridge,	Shenandoah,	Oct.	19	Pelvis bone broken by a fall of coal; Pole, miner.
	19	Peter Bubness,	28	S.	....	Knickerbocker,	Yatesville, Shenandoah,	19 and	21	Slightly burned by an explosion of gas; Pole.
	19	Charles Majack,	24	S.	....	Knickerbocker,	Yatesville, Shenandoah,	19 and	21	Slightly burned by an explosion of gas; Pole.
	19	Mike Chico,	31	S.	....	Knickerbocker,	Yatesville, Shenandoah,	19 and	21	Severely burned by an explosion of gas; Pole.
	19	Andrew Bosser,	22	S.	....	Knickerbocker,	Yatesville, Shenandoah,	19 and	21	Slightly burned by an explosion of gas; Pole.
	19	Anthony Subries,	28	S.	....	Knickerbocker,	Yatesville, Shenandoah,	19 and	21	Slightly burned by an explosion of gas; Pole.
	19	John Sopitsky,	35	M.	....	Knickerbocker,	Yatesville, Shenandoah,	19 and	21	Slightly burned by an explosion of gas; Pole.
	19	Felix Mecolsky,	32	S.	...	Knickerbocker,	Yatesville, Shenandoah,	19 and	21	Slightly burned by an explosion of gas; Pole.
	19	Robert Lord,	30	M.	1	Knickerbocker,	Yatesville, Shenandoah,	19 and	21	Slightly burned by an explosion of gas; American.
	25	James Devaney,	17	S.	....	Packer No. 5,	Rappahannock,		26	Leg fractured; slipped between spokes of driving wheel in breaker; Irish, jig-tender.
	30	Thomas Williams,	17	S.	....	Honey Brook No. 5,	Audenreid,			Legs severely crushed; fell under clay truck at strippings; Welsh, driver.
	30	John Shoen,	35	S.	....	North Mahanoy,	Mahanoy City,		31	Leg and shoulder broken; in attempting to cross track was struck by a loaded car; American, laborer.
	30	Rufus Lockwood,	54	M.	5	Packer No. 2,	Lost Creek,		31	Leg severely bruised; he was sitting on a collar in gangway and the cars came along and struck him; American, laborer.
	31	John Everman,	19	S.	....	Packer No. 4,	Lost Creek,	Nov.	1	Right arm cut off; he left the switch misplaced and coming on to turn out the loaded car ran into empty truck; American, driver.
	31	Anthony Burgness,	44	M.	....	Maple Hill,	St. Nicholas,		2	Leg fractured by a fall of coal; Pole, miner.
Nov.	8	Alexander Davis,	27	S.	....	Maple Hill,	St. Nicholas,		9	Both hands blown off; he had prepared a blast and after waiting for it to explode, he ventured and commenced withdrawing the charge, when it exploded; English, miner.
	12	James Morrison,	20	S.	....	Turkey Run,	Shenandoah,		14	Leg cut off by being jammed between two cars; American, car runner.
	15	Anthony Maulick,	31	S	....	Ellangowan,	Maple Dale,		16	Leg fractured by a fall of coal; Pole, miner.

TABLE No. 5.— *Continued.*

Date of accident.	Name of Person Killed.	Age.	Married or single.	No. of Children.	Name of Colliery.	Location--Schuylkill County.	Date of investigation.	Nature and Cause of Accident in Brief.
Nov. 18	Martin Evanosky, ...	22	S.	....	Buck Mountain, ...	Buck Mountain, ...	23	Leg fractured by a fall of coal; Pole, miner.
18	William H. Simeres, ...	26	M.	....	Park No. 3 slope, ...	Park Place, ...	23	Burned by powder; he had his lamp on his head while emptying powder from a keg into a cartridge, when a spark from his lamp fell into the keg, igniting the powder; American, miner.
19	Richard Richards, ...	16	....	....	Lawrence, Gilberton, ...	Mahanoy Plane, ...	20	Leg cut off; he fell into scraper line to convey coal to boilers from breaker; the boys were chasing one another during a short stoppage of the breaker; slate picker; American.
27	David Spotts, ...	....	....	....	Gilberton, ...	Gilberton, ...	28	Leg fractured; fell under a loaded dumper; American, laborer.
30	Anthony Senesky, ...	26	S.	....	North Mahanoy, ...	Mahanoy City, ...	Dec. 2	Leg fractured by a fall of top coal; Pole, miner.
Dec. 2	Thomas Wachock, ...	25	S.	....	Boston Run	Mahanoy City, ...	3	Leg fractured; jammed between rock and chute plank; Pole, starter.
2	Ben Harris, ...	14	....	....	Bear Ridge, ...	Mahanoy Plane, ...		Arm fractured; he was in breaker and fell off a plank; mail boy.
4	Daniel Brennan, ...	48	M.	10	Maple Hill, ...	St. Nicholas, ...	6	Head injured; he lighted a shot and was only a few feet away when the blast exploded; the squib was shortened; Irish, miner.
11	Michael Schultz, ...	30	S.	....	Packer No. 5.	Rappahannock, ...	12	Face and hands burned by an explosion of gas; Pole, miner.
12	Thomas Onoyack, ...	35	M.	3	Indian Ridge, ...	Shenandoah, ...	16	Face and hands severely burned by an explosion of gas; Pole, miner.
14	Lawrence Murphy, ...	48	M.	6	Packer No. 2, ...	Lost Creek, ...	17	Face and hands severely burned by an explosion; Irish, fire boss.
16	Heinrick Brice, ...	18	S.	...	Packer No. 5, ...	Rappahannock, ...	19	Head injured; the door of car swung against the end of car, jamming his head; Pole ,outside laborer.

20	Elix Shoppy,	16	...		Ellangowan,	Maple Dale,	21	Arm fractured; while taking sprag out of wheel, it came around and struck him: American, laborer.
23	Thomas Jarman,	29	M	2	Springdale,	Mahanoy City,	24	Burned on face and hands by an explosion of gas; he was making an examination of the timber in a new chute and to better see the timber, he unscrewed the gauze from the lamp; fire boss, Welsh.
31	Paul Novitsky,	28	S.		Bear Run,	St. Nicholas,	Jan. 3,'96	Leg fractured and body bruised by a fall of coal; Pole, miner.

SEVENTH ANTHRACITE DISTRICT.

(NORTHUMBERLAND, COLUMBIA, SCHUYLKILL AND DAUPHIN COUNTIES.)

Shamokin, Pa., February 20, 1896.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor to present herewith my report as Inspector of Coal Mines for the Seventh Anthracite Mining District for the year ending December 31, 1895, as required by section ten, article two of the act of June 2, 1891.

It contains tables and statistics showing location of collieries, total number of tons of coal mined and shipped, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, and other information relative to anthracite coal mining.

The total production of tons of coal for the year 1895 was 6,184,542 tons, against 5,404,823 tons in 1894, an increase of 779,719 tons. The total shipment was 5,715,620 tons for 1895, against 4,973,335 tons for 1894, an increase of 742,285 tons.

The number of fatal casualties was 59, a decrease of 19 from the year 1894.

The non-fatal casualties were 114 against 76 in 1894, an increase of 38.

A brief description of the important improvements at a few of the collieries is given, also remarks on the fatal accidents which could have been averted and which were due to carelessness on the part of the victims.

I am especially pleased to note the decrease in loss of life and increase in production and shipment, and trust the operators, foremen, miners and all others interested, will exercise all possible care, skill and judgment and thus reduce the casualties to their lowest possible limit.

Respectfully submitted,

EDWARD BRENNAN,

Mine Inspector.

Examination of Applicants for Mine Foremen Certificates.

The annual examination of applicants for mine foremen certificates in the Seventh District was held at Pottsville, June 14 and 15, 1895, and was presided over by the following board: Edward Brennan, Mine Inspector, Shamokin; Andrew Robertson, coal operator, Shamokin; Robert Muir, miner, Mount Carmel, and Adam Bachman, miner, Ashland.

The candidates who were successful in passing the examination were: James Bateman, Natalie; William Howells, Natalie; Thomas J. Richards, Excelsior; Marcus Schock, Sagon; August Hinkey, Ashland; Fred. Williams, Mount Carmel; Robert Taylor, Mount Carmel; John E. Buckley, Wiconisco; Michael Readdy, Shamokin; James Golden, Shamokin; Robert K. Thomas, Shamokin; W. C. Yarworth, Centralia; John Lewis, Centralia; Michael Horan, Centralia, and Henry J. Weller, Centralia.

Condition of the Collieries.

The condition of the collieries will compare favorably with that of last year, which of course includes the necessary improvements going on from year to year.

Improvements Made During the Year.

During the year 1895, the following improvements were made at the Enterprise colliery, viz:

Rock tunnel has been driven from the bottom split of Mammoth vein into the top (or No. 9) striking a good vein of coal from six to nine feet thick. A self-acting plane has also been driven from lower lift of Skidmore vein 225 feet long, splitting the lift which can be worked to a better advantage by this arrangement. An outlet has been driven on the Skidmore vein to the surface, 590 feet long, on which a 16 foot fan is now being erected which will thoroughly ventilate this vein and also the workings on the Mammoth counter gangway. An electric plant of 50 horse power has been installed for handling all coal mined in the Skidmore vein, which works satisfactorily, drawing from 8 to 10 loaded cars each trip a distance of 2,800 feet or 5,600 feet for the round trip, in about 12 minutes. The same plant also furnishes twelve incandescent lights which are located at the bottom of the slope, in the pump room and in the stable. A large breaker of an improved pattern with capacity of 2,000 tons per day, has been built and resumed operations in October, 1895, to replace the one destroyed by fire in May, 1895. The new breaker is placed at No. 3 slope, hoisting direct into the breaker, thereby doing away with the long haul which was previously done by locomotives. Four new boilers for generating steam have been added at No. 3 slope. No. 5 slope on Lykens Valley vein was

abandoned on June 13, 1895, owing to the vein both east and west pinching out completely, but not until after a great deal of expense was undergone in driving and proving holes in different directions which failed to reveal any trace of the vein.

Girard colliery, formerly Ferndale. The old breaker structure has been torn down and a new one erected in its place with the latest improved machinery. Also considerable improvements have been made inside for the betterment of the colliery.

The Union Coal Company has taken out a number of old cylinder boilers at their different collieries and replaced them with the latest improved type or horizontal tubular boilers.

The Mineral Railroad and Mining Company have added several of the latest improved safety boilers at their collieries. At their Cameron colliery, a new shaft has been sunk in order to reach territory heretofore unmined, which will add materially to their shipments.

The Philadelphia and Reading collieries are adding new horizontal tubular boilers to their steam plants, which take the place of old style cylinder boilers.

Fatal Accidents.

During the year 1895, four miners were killed through their own carelessness by igniting powder in kegs in carelessly using their lamps, viz:

Andrew Knight, at Stirling colliery; Michael Boyack at Midvalley colliery; Steve Capello at Henry Clay colliery, and Andrew Scotsko at Burnside colliery.

These are instances where carelessness has ruled, instead of the greater care which is essential to the safe using of powder in mines. The above fatalities should be a warning to all miners to use the utmost care where a naked light is used about explosives of any sort. Too great stress cannot be put upon this subject, and it should be indelibly impressed on the mind of every miner.

Steve Barross, a laborer at Natalie colliery (Patterson), while sinking slope, was instantly killed February 5, by a wagon running down the slope. Automatic safety blocks on top of the slope failed to work, the morning having been very cold, and the top-man failed to examine the blocks in this instance, thereby allowing the wagon to run down the slope.

Michael Gillespie, fire boss and Michael Dunlavey, a miner, at Preston No. 3 colliery, were killed February 13, by an explosion of gas. It is an imperative rule at this colliery to fire no shot without the permission of the fire boss, on account of the place being very gaseous. After the fire boss had examined the place and gave his

consent to fire the shot, the miner who ignited the shot went down the manway to the gangway, while Gillespie and Dunlavy went into the manway in breast outside of the one where the shot was fired and after the blast went off, although charged with dynamite, it exploded the gas, killing Gillespie and Dunlavy, while the miner who went into the gangway was unharmed. Better care on the part of the men themselves would avert dangers of this class.

Stanny Grocuski, a miner, at Neilson colliery, killed April 30. This man stole away into an abandoned breast to smoke his pipe, which is contrary to the rules of the colliery. He unscrewed his lamp and while in the act of lighting the pipe ignited the gas, which killed him instantly. No censure can be attached to any person but the victim. It requires a rigid enforcement of discipline in this mine, where there is much gas to avert the frequent occurrence of fatalities of this nature.

Frank Mattern, was killed at Short Mountain colliery, May 31, while standing alongside the gangway, when a trip of cars was passing when he attempted to jump into a moving car which was loaded with timber. There being insufficient room his body was caught between top of car and top rock, crushing the life out of him. Such fatalities may be averted by proper care and judgment on the part of the persons themselves.

Edward Kelley, miner, at Pennsylvania colliery, was smothered by an outburst of gas, November 8. He did not come down to a place of safety as he should have done, but after lighting the shot went into a blind heading. Although knowing that after every blast the place was subject to an outburst of gas, he went into it with above result. With proper care on the part of the victim he would not have so met his fate.

TABLE A—*Comparative Statement of Fatal Casualties from Various Causes that Occurred During the Years 1893, 1894 and 1895.*

	1893.	1894.	1895
Suffocated by smoke from mine fire,		5	
Explosions of fire damp,		6	3
Falls of coal and roof,	50	27	2
Mine cars and machinery,	15	12	11
Falling down slopes, shafts and manways,		3	2
Explosion of blasting materials,	8	9	9
Kicked by mules,	1	1	
Falling down chutes,		3	
Boiler explosions,		7	
Miscellaneous,	18	5	
Totals,	77	78	5

TABLE B—*Showing Number of Tons of Coal Mined by Each Company, Number of Fatal Casualties and Number of Tons Mined for Each Fatality.*

	Tons Mined.	Deaths.	Tons mined per death.
Philadelphia and Reading Coal and Iron Company,	2,410,312	22	109,5
Mineral Railroad and Mining Company,	429,048	3	143,01
Summit Branch Railroad Company,	442,298	1	4 2,29
Lykens Valley Coal Company,	270,758	4	67,6
The Union Coal Company,	889,07	11	80,82
Lewis A. Riley & Co.,	403,485	3	134,49
Individual collieries,	1,339,814	15	89,3
Totals,	6,184,542	59	1,067,117

Note.—Average number of tons mined per life lost, 104.823.

TABLE C—*Showing the Comparison of Non-Fatal Casualties for the Years 1893, 1894 and 1895.*

	1893.	1894.	1895.
Falls of coal and roof,	42	39	10
Explosions of fire damp,	16	8	1
Mine cars and machinery,	37	27	36
Explosion of blasting material,	9	3	1
Kicked by mules,	1		2
Breaking of ropes and chains,		1	
Falling down chutes and manways,		2	1
Miscellaneous,	14	5	
Totals,	119	76	111

TABLE D—*Showing Comparison of the Quantity of Coal Shipped, the Estimated Quantity Used and Sold at Collieries, and the Total Production for the Years 1893, 1894 and 1895.*

	1893.	1894.	1895.
Quantity of coal shipped,	4,968,273.00	1,973 335 00	5,715 6.0
Quantity of coal used and sold at collieries,	320 618.00	431. 48 00	468,922
Total,	5,288,891.00	5,404,823.00	6,184,54?

TABLE E—*Showing General Comparisons Between the Years 1893, 1894 and 1895.*

	1893.	1894.	1895.
Number of persons employed,	19,179	19,121	19,399
Number of tons of coal mined per life lost,	68,687	69 293	104,82?
Ratio of employes per life lost,	249	245	3.9
Number of tons of coal mined per person injured,	44,444	71,116	54,259
Tons of coal mined per employe,	276	283	319

TABLE F—*Showing the Number of Persons Employed by the Several Companies and the Number of Deaths.*

	Number of deaths.	Number of employees.
Philadelphia and Reading Coal and Iron Company,	22	6,993
Mineral Railroad and Mining Company,	3	1, 9?
Summit Branch Railroad Company,	1	98?
Lykens Valley Coal Company,	4	99?
The Union Coal Company,	11	3,059
Lewis A. Riley & Co.,	3	1,?14
Individual collieries,	15	4,557
Total,	59	19,?99

TABLE 1.—*Showing location, etc., of collieries in the Seventh Anthracite District for the year ending December 31, 1895.*

Name of Colliery.	Name of Operator.	Location—County.	Name of Superintendent.	Postoffice Address.
Alaska,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
Reliance,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
George Fales' washery,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
North Ashland,	Philadelphia & Reading Coal and Iron Co.	Columbia,	John Veith,	Pottsville.
Bast,	Philadelphia & Reading Coal and Iron Co.	Schuylkill,	John Veith,	Pottsville.
Tunnel,	Philadelphia & Reading Coal and Iron Co.	Schuylkill,	John Veith,	Pottsville.
Keystone Jig,	Philadelphia & Reading Coal and Iron Co.	Schuylkill,	John Veith,	Pottsville.
Potts,	Philadelphia & Reading Coal and Iron Co.	Schuylkill,	John Veith,	Pottsville.
Merriam,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
Monitor,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
Locust Gap,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
Locust Spring,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
Buck Ridge,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
Big Mountain,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
Peerless,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
Henry Clay,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
Stirling,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
Burnside,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
Bear Valley,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
North Franklin,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	John Veith,	Pottsville.
Preston, No. 2,	Philadelphia & Reading Coal and Iron Co.	Schuylkill,	John Veith,	Pottsville.
Preston No. 3,	Philadelphia & Reading Coal and Iron Co.	Schuylkill,	John Veith,	Pottsville.
Locust Run,	Philadelphia & Reading Coal and Iron Co.	Columbia,	John Veith,	Pottsville.
Mid Valley No. 1,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	Charles Jasper,	Mount Carmel.
Mid Valley No. 2,	Philadelphia & Reading Coal and Iron Co.	Northumberland,	Charles Jasper,	Mount Carmel.
Pennsylvania,	The Union Coal Company,	Northumberland,	John L. Williams,	Shamokin.
Richards,	The Union Coal Company,	Northumberland,	John L. Williams,	Shamokin.
Hickory Ridge,	The Union Coal Company,	Northumberland,	John L. Williams,	Shamokin.
Hickory Swamp,	The Union Coal Company,	Northumberland,	John L. Williams,	Shamokin.
Excelsior,	Excelsior Coal Company,	Northumberland,	Andrew Robertson,	Shamokin.
Corbin,	Excelsior Coal Company,	Northumberland,	Andrew Robertson,	Shamokin.
Cameron,	Mineral Railroad and Mining Company,	Northumberland,	Morris Williams,	Shamokin.
Luke Fidler,	Mineral Railroad and Mining Company,	Northumberland,	Morris Williams,	Shamokin.
Logan,	Lewis A. Riley & Co.,	Columbia,	Edward Reese,	Centralia.
Centralia,	Lewis A. Riley & Co.,	Columbia,	Edward Reese,	Centralia.
Williamstown,	Summit Branch Railroad Company,	Dauphin,	T. M. Williams,	Lykens.
Short Mountain,	Lykens Valley Coal Company,	Dauphin,	T. M. Williams,	Lykens.
Neilson,	J. Langdon & Co., Incorporated,	Northumberland,	Harry S. Gay,	Shamokin.
Enterprise,	Enterprise Coal Company,	Northumberland,	W. L. Connell,	Scranton.
Mount Carmel,	Thomas M. Righter & Co.,	Northumberland,	Thomas M. Righter,	Mount Carmel.
Columbus No. 1,	Scheafer, Bickel & Co.,	Northumberland,	Tobias Bickel,	Mount Carmel.
Columbus No. 2,	E. E. White and Alfred White,	Northumberland,	E. E. White,	Mount Carmel.

TABLE NO. 1.—*Continued.*

Name of Colliery.	Name of Operator.	Location—County.	Name of Superintendent.	Postoffice Address.
Colbert,	Shipman Coal Company,	Northumberland	George S. Comstock,	Shamokin.
Girard,	Girard Coal Company,	Northumberland,	Alex. B. Law,	Mount Carmel.
Patterson,	Penn Anthracite Coal Company,	Northumberland,	Henry Vincent,	Natalie.
Big Mine Run,	Lewis A. Riley & Co.,	Schuylkill,	Edward Reese,	Centralia.
Royal Oak,	Lewis Cantner and Royal Oak Coal Company,	Northumberland,	J. O. Hopkins,	Shamokin.
Lambert washery,	Mineral Railroad and Mining Company,	Northumberland	Morris Williams,	Shamokin.

TABLE No. 2.—*Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, etc., in the Seventh Anthracite District for the year ending December 31, 1895*

Names of Collieries.	Location—County.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Pounds of dynamite used.	Electric motors in use.
Alaska,	Northumberland,	243,675	238,356	269	553	2	3	7,300	38	91	.....	4,411	.....
Reliance,	Northumberland,	144,267	141,614	208	409	1	1	5,012	26	49	.....	1,481	.....
North Ashland,	Columbia,	98,721	95,084	213	328	2	3	1,247	40	38	1	5,931	.....
East,	Schuylkill,	113,529	109,817	214	446	.....	2	1,122	46	51	.....	10,195	.....
Keystone Jig,	Schuylkill,	51,217	50,793	151	47	.....	.....	.....	14	7	.....	.....	.....
Potts,	Schuylkill,	53,948	51,390	194	211	.....	1	320	31	24	.....	11,792	.....
Merriam,	Northumberland,	125,409	120,974	203	464	2	1	1,739	39	54	.....	18,181	.....
Monitor,	Northumberland,	57,705	54,209	176	186	2	4	1,917	16	33	.....	2,273	.....
Locust Gap,	Northumberland,	174,945	169,507	213	352	1	1	2,539	14	40	1	2,519	.....
Locust Spring,	Northumberland,	162,213	157,452	215	479	2	1	3,689	28	62	1	2,997	.....
Buck Ridge,	Northumberland,	79,241	76,770	116	234	1	2	962	24	19	.....	5,057	.....
Big Mountain,*	Northumberland,	.....	.....	.....	.....	.....	.....	5,959	28	.....	1	7,834	.....
Peerless,*	Northumberland,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Henry Clay,*	Northumberland,	465,298	449,841	220	1,498	1	1	1,723	10	211	2	2,619	.....
Stirling,*	Northumberland,	.....	.....	.....	.....	1	6	3,299	20	.....	.....	2,236	.....
Burnside,	Northumberland,	263,964	258,469	214	678	2	6	5,657	16	87	.....	7,073	.....
Bear Valley,	Northumberland,	154,676	151,345	215	429	1	1	3,737	24	56	1	4,164	.....
North Franklin,	Northumberland,	124,452	121,776	215	357	1	2	2,105	25	38	.....	5,988	.....
Preston No. 2,	Schuylkill,	.....	.....	.....	11	.....	.....	.....	14	3	.....	.....	.....
Preston No. 3,	Schuylkill,	88,890	85,891	200	311	3	1	189	16	30	.....	16,660	.....
George Fales' washery,	Northumberland,	8,162	7,742	146	2	.....	.....	.....	.....	.....	.....	.....	.....
Tunnel,	Schuylkill,†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Locust Run,	Columbia †	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Consolidated with Henry Clay. †Not reported.

TABLE No. 2.—*Continued.*

Names of Collieries.	Location—County.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used	Number steam hoists.	Number horses and mules.	Number mine locomotives.	Pounds of dynamite used.	Electric motors in use.
Richards,	Northumberland,	342,785	326,585	214	1,008	3	3	10,845	12	71	1	.....	.....
Pennsylvania,	Northumberland,	289,874	268,874	222	902	6	19	10,039	32	112	2	.....	.....
Hickory Ridge,	Northumberland,	170,064	160,764	212	611	2	9	4,158	25	70	2	.....	.....
Hickory Swamp,	Northumberland,	86,304	80,804	135	349	.....	1	2,284	12	45	.....	.....	.....
Williamstown,	Dauphin,	442,298	347,587	264	985	1	12	4,548	94	151	3	.....	.....
Short Mountain,	Dauphin,	270,558	221,600	241	990	4	.....	3,230	67	148	3	.....	2
Cameron,	Northumberland,	400,383	376,187	261	1,346	3	14	12,497	29	130	1	44,475	.....
Luke Fidler,	Northumberland,	.....	.....	.....	216	.....	.....	18	12	18	1	1,982	.....
Lambert washery,	Northumberland,	28,665	27,423	25	50	.....	.....	.....	4	.....	1	.....	.....
Midvalley No. 1,	Northumberland,	156,593	194,609	197	509	2	2	4,155	6	47	.....	.....	.....
Midvalley No. 2,	Northumberland,	48,022	.....	.....	114	.....	.....	1,551	2	6	1	.....	.....
Excelsior,	Northumberland,	175,224	165,071	237	406	3	1	5,151	30	49	1	.....	.....
Corbin,	Northumberland,	77,691	74,575	234	218	.....	1	3,400	9	19	.....	.....	.....
Logan,	Columbia,	144,294	116,980	195	520	1	3	3,718	28	38	1	3,100	.....
Centralia,	Columbia,	161,275	133,734	195	552	2	1	3,057	21	65	1	3,200	.....
Big Mine Run,	Schuylkill,	97,916	96,860	221	140	.....	.....	328	1	16	.....	.....	.....
Neilson,	Northumberland,	184,914	154,914	230	540	3	7	2,600	19	47	.....	.....	.....
Mount Carmel,	Northumberland,	104,398	98,571	194	325	1	1	1,212	33	31	2	.....	.....
Patterson,	Northumberland,	309,695	294,695	256	1,012	4	2	9,600	26	80	2	.....	.....
Enterprise,	Northumberland,	101,182	93,010	134	489	1	.....	3,476	30	45	2	3,751	1
Colbert,	Northumberland,	80,133	75,733	185	300	1	2	2,400	9	30	.....	.....	.....
Columbus No. 1,	Columbia,	88,752	74,586	133	345	.....	.....	1,910	19	31	.....	.....	.....
Columbus No. 2,	Northumberland,	7,970	6,670	93	45	.....	.....	333	4	3	.....	.....	.....
Girard,	Northumberland,	5,240	4,787	15	253	.....	.....	167	11	21	.....	.....	.....
Royal Oak,†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total,	.....	6,184,542	5,715,620	7,715	19,399	59	114	139,193	1,004	2,146	33	168,719	3

† Not reported.

Table No. 3.—*Showing the number of each class of employes at each colliery in the Seventh Anthracite District during the year 1895.*

Names of Collieries.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.								Grand total, inside and outside.
	Inside foremen.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Door boys and helpers.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All other company men.	Superintendents, bookkeepers and clerks.	Total outside.	
Alaska,	3	218	32	69	33	14	369	1	6	21	89	65	2	184	553
Reliance,	4	158	19	25	16	7	229	1	9	18	90	60	2	180	409
North Ashland,	4	47	7	31	9	5	103	1	4	24	87	48	1	165	328
East,	10	85	22	96	14	16	243	1	8	23	105	64	2	203	446
Keystone J.g,								1	2	6	9	29		47	47
Potts,	5	29	25	39	5	1	107	1	4	19	29	49	2	104	211
Merriam,	6	121	36	110	20	13	306	1	11	27	64	53	2	158	464
Monitor,	3	54	21	31	6	3	118	1	4	4	29	29	1	68	186
Locust Gap,	4	99	14	58	10	5	190	1	12	18	74	35	2	162	352
Locust Spring,	6	150	15	105	13	3	292	2	10	20	89	64	2	187	479
Buck Ridge,	5	58	7	50	4	4	128	1	4	19	59	37	1	106	234
Big Mountain,*															
Peerless,*															
Henry Clay,*	15	472	105	246	77	14	929	4	29	55	249	227	5	569	1, 498
Stirling,*															
Burnside,	4	235	103	67	5	12	426	1	11	19	106	113	2	252	678
Bear Valley,	3	121	19	68	16	8	235	1	5	18	104	65	1	194	429
North Franklin,	3	65	29	55	10	1	163	1	9	13	75	93	1	192	355
Preston No. 2,				1			1			5		5		10	11
Preston No. 3,	6	57	23	69	0	9	174	1	5	19	66	45	1	137	311
George Fales' washery,												2		2	2
Tunnel,†															
Locust Run,†															
Richards,	2	394	77	119	18	12	622	1	7	12	148	215	3	386	1,008
Pennsylvania,	1	310	15	142	45	15	628	1	7	33	35	125	3	254	902

* Consolidated with Henry Clay. † Not reported.

TABLE NO. 3.—*Continued.*

Names of Collieries.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.								
	Inside foremen.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Door boys and helpers.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All other company men.	Superintendents, bookkeepers and clerks.	Total outside.	Grand total, inside and outside.
Hickory Ridge	1	176	78	122	21	4	402	1	7	18	96	85	2	209	611
Hickory Swamp	1	171	58	127	10	10	397	1	6	13	39	91	2	152	549
Williamstown	3	348	130	122	37	11	673	2	4	37	128	128	3	312	985
Short Mountain	3	275	205	115	85	13	698	2	18	27	119	123	3	292	990
Cameron	7	422	78	330	62	37	936	1	18	24	188	176	3	410	1 346
Luke Fidler	5	4	1	114	5	.....	129	1	14	12	.....	48	2	87	216
Lambert washery	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	27	.....	30	30
Logan	2	140	42	80	15	4	283	1	7	44	130	50	3	237	520
Centralia	2	130	26	85	23	11	277	1	11	27	150	81	3	275	552
Big Mine Run	1	9	15	1	5	.....	31	1	6	5	35	60	2	109	140
Midvalley No. 1	1	139	59	66	26	7	298	2	6	7	70	121	3	211	509
Midvalley No. 2	1	57	34	8	2	.....	102	.....	1	4	.....	7	.....	12	114
Excelsior	4	137	65	38	22	3	269	2	9	11	66	47	2	137	406
Corbin	2	81	29	30	9	.....	151	2	2	5	32	24	2	67	218
Neilson	3	213	70	54	61	8	389	1	11	15	60	60	4	151	540
Mount Carmel	1	102	16	48	12	4	183	2	4	16	60	57	3	142	325
Patterson	3	269	260	50	43	12	637	2	24	28	127	191	3	375	1,012
Enterprise	2	205	80	53	35	5	358	1	7	17	62	642	2	131	489
Colbert	1	145	15	53	12	5	201	1	3	9	65	20	1	99	300
Columbus No. 1	4	130	16	72	12	5	239	1	4	12	35	52	3	107	346
Columbus No. 2	1	15	2	4	2	.....	24	1	1	1	12	5	1	21	45
Girard	1	66	70	47	5	.....	189	1	2	7	57	15	2	84	253
Royal Oak†	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	137	5,917	1,988	3,050	855	282	12,189	49	322	725	3 079	2 917	88	7,210	19,399

†Not reported.

TABLE No. 4.—*List of fatal accidents that occurred in and about the mines of the Seventh Anthracite District for the year ending December 31, 1895.*

Date of Accident, 1895.	Name of Person Fatally Injured.	Age.	Married or single.	Number of Orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident in Brief.
Jan. 7.	John Bresso,				Alaska,	Northumberland,	Coal fell on him; died January 11.
8.	Horace P. Minnick,	22	S.		Short Mountain,	Dauphin,	Struck by a piece of coal on stomach.
10.	Andrew Wargo,				Pennsylvania,	Northumberland,	Killed by fall of top rock.
16.	Andrew Rasamerski,				Cameron,	Northumberland,	Killed by falling down a manway.
21.	Harry Crozier,				Williamstown,	Dauphin,	Killed by falling under moving mine cars.
21.	Richard Gilham,				Cameron,	Northumberland,	Killed by being caught in breaker machinery.
Feb. 5.	Stephen Lucas,	32	M.	3	Pennsylvania,	Northumberland,	Knocked under cars and killed.
5.	Steve Barrass,				Patterson,	Northumberland,	Killed by fall of coal.
13.	William Gillespie,				Preston No. 3,	Schuylkill,	Killed by explosion of gas.
13.	Michael Dunlavey,				Preston No. 3,	Schuylkill,	Killed by explosion of gas.
18.	Charles Grazor,	20	S.		North Ashland,	Columbia,	Killed by fall of frozen dirt on bank.
Mar. 4.	George Drumheller,				Buck Ridge,	Northumberland,	Fell down jugular road and killed.
18.	Joseph Drubenski,				Enterprise,	Northumberland,	Killed by fall of slate.
20.	William Morgan,				Reliance,	Northumberland,	Killed by breaker machinery.
25.	Elijah Yarnall,	61			Locust Gap,	Northumberland,	Instantly killed by mine wagons.
26.	Thomas Rogers,				Preston No. 3,	Schuylkill,	Caught between mine cars; died April 17.
28.	Joe Jones,				North Franklin,	Columbia	Killed by premature explosion of shot.
30.	Peter Klutz,				Neilson,	Northumberland,	Killed by fall of rock.
Apr. 2.	Andrew Knight,	35	M.		Stirling,	Northumberland,	Killed by explosion of powder.
30.	Stany Grocuski,				Neilson,	Northumberland,	Killed by explosion of gas.
30.	William Carl,				Richards,	Northumberland,	Foot caught in rail and injured by wagon running over it; died from blood poisoning.
May 1.	James D. Dunlavey,	51	M.	5	Mount Carmel,	Northumberland,	Killed by fall of coal.
2.	Charles Burke,	45	M.	5	Merriam,	Northumberland,	Killed by fall of coal.
3.	James Woods,	43	M.	5	Pennsylvania,	Northumberland,	Killed by premature explosion of shot.
4.	Martin Boylan,	19	S.		Monitor,	Northumberland,	Head crushed between wagon and prop.
15.	Joseph Frasuskie,				Cameron,	Northumberland,	Blown down manway by force of shot.
28.	Frank Matter,	41			Short Mountain,	Dauphin,	Squeezed between car and top rock.
June 8.	Francis Nicholoio,				Excelsior,	Northumberland,	Killed by fall of slate.
12.	Adam Doursh,				Patterson,	Northumberland,	Bell from top rod dropped and killed him.
28.	James Mahan,				North Ashland,	Columbia,	Killed by fall of coal.
July 10	Nick Bovak,				Midvalley,	Northumberland,	Burned by explosion of powder; died July 18.

Table No 4.—*Continued.*

Date of Accident, 1895.	Name of Person Injured.	Age.	Married or single.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident in Brief.
July 12,	Charles Carminski,	45	M.	....	Midvalley,	Northumberland,	Neck broken by striking top rock.
16,	Michael Barbarskie,	29	M.	1	Richards,	Northumberland,	Killed by premature blast.
17,	August Gibas,	....	....	....	Monitor,	Northumberland,	Killed by fall of coal from pillar.
20,	John Dutta,	....	....	....	Excelsior,	Northumberland,	Killed by fall of slate.
24,	Enoch Glass,	....	....	....	Alaska,	Northumberland,	Killed by fall of slate.
27,	Steve Capello,	....	....	....	Henry Clay,	Northumberland,	Killed by explosion of keg of powder.
Aug. 6,	Mike Barkos,	....	....	....	Pennsylvania,	Northumberland,	Fatally injured by fall of top coal.
9,	Joseph Enders,	25	....	....	Short Mountain,	Dauphin,	Killed by a flying piece of coal.
21,	Albert Krah,	20	S.	....	Locust Spring,	Northumberland,	Instantly killed by fall of bench.
Sept. 13,	James Ryan,	....	....	....	Centralia,	Columbia,	Killed by fall of top coal.
14,	Daniel Bare,	21	....	....	Hickory Ridge,	Northumberland,	Killed by shot blowing through pillar.
Oct. 5,	Charles Richards,	16	....	....	Patterson,	Northumberland,	Caught by hoisting rope and killed.
8,	Joseph Paszter,	28	M.	1	Hickory Ridge,	Northumberland,	Crushed by fall of top rock.
15,	John Savada,	....	....	....	Neilson,	Northumberland,	Squeezed between mine wagons.
23,	Michael Datsko,	....	....	....	Pennsylvania,	Northumberland,	Burned by explosion of powder; died October 30.
28,	James Horn,	14	S.	....	Burnside,	Northumberland,	Fell in jig scraper line.
Nov. 8,	Edward Kelley,	35	M.	3	Pennsylvania,	Northumberland,	Killed by rush of coal.
11,	Charles Sount,	59	....	....	Short Mountain,	Dauphin,	Crushed between loaded mine cars.
18,	John Shominski,	21	S.	....	Excelsior,	Northumberland,	Instantly killed by fall of top slate.
18,	William P. Strausser,	....	....	....	Patterson,	Northumberland,	Killed by fall of top rock
22,	William Beavage,	30	S.	....	Centralia,	Columbia,	Killed by fall of coal.
29,	Thos. McGrath,	36	S.	....	Richards,	Northumberland,	Killed by fall of coal.
29,	Michael Haley,	21	S.	....	Colbert,	Northumberland,	Killed by fall of top coal.
Dec. 3,	August Farini,	22	S.	....	Locust Spring,	Northumberland,	Killed by fall of top rock.
5,	Otto Wagner,	56	M.	5	Merriam,	Northumberland,	Killed by fall of top coal.
6,	Owen Owens,	45	M.	....	Logan,	Columbia	Fatally injured by clay rolling on party.
16,	Joseph Bloscow	35	M.	....	Burnside	Northumberland,	Loaded car running over body.
18,	Andrew Scotko,	....	....	....	Bear Valley,	Northumberland	Internally injured by fall of top coal; died December 27.

Table No. 5.—*List of non-fatal accidents that occurred in and about the mines of the Seventh Anthracite District for the year ending December 31, 1895.*

Date of Accident, 1895.	Name of Person Injured	Age.	Married.	Number of children.	Name of Colliery.	Location—County.	Nature and Cause of Accident in Brief.
Jan. 10.	Fred. Woods	16	S.	....	Pennsylvania,	Northumberland,	Injured by fall of top rock.
16.	Edward Jones,	....	....	....	Cameron,	Northumberland,	Injured about head by fall of top coal.
16.	Aaron Broome,	....	....	....	Cameron,	Northumberland,	Collar bone broken; squeezed between car and prop.
16.	Dominick Switskie,	26	S.	....	Pennsylvania,	Northumberland,	Leg hurt by fall of slate.
16.	George Whistler,	23	M.	2	Hickory Ridge,	Northumberland,	Arm broken; squeezed between car and prop.
21.	William Madara,	31	M.	4	Colbert,	Northumberland,	Leg broken by fall of top coal.
23.	Steve Mihok,	26	....	....	Hickory Ridge,	Northumberland,	Shoulder and side hurt; caught between wagon and door.
24.	Claude Haas,	....	....	....	Cameron,	Northumberland,	Fell down breaker steps and broke his arm.
31.	Albert Martin,	....	....	....	Cameron,	Northumberland,	Limb broken by fall of coal.
Feb. 1.	Robert Davis,	19	S.	....	Pennsylvania,	Northumberland,	Leg broken by falling under mine car.
4.	Dominick Muscavage,	50	M.	....	Excelsior,	Northumberland,	Injured by fall of rock.
5.	Thomas Murphy,	....	....	....	East,	Schuylkill,	Rush of coal; breaking ribs and bruising body.
11.	Theodore Knoff,	26	M.	....	Colbert,	Northumberland,	Fall of top coal, fracturing leg.
13.	Thomas Lloyd,	....	....	....	Preston No. 3,	Schuylkill,	Fell on iron bar, injuring his lungs.
13.	Alfred Edwards,	....	....	....	Alaska,	Northumberland,	Eye cut; struck by point of pick.
14.	Peter Carsey,	23	S.	....	Centralia,	Columbia,	Back hurt and leg broken by dumper.
15.	Joseph Simmons,	....	....	....	Sterling	Northumberland,	Back and legs injured by fall of coal.
27.	William Bogwood,	40	M.	....	Pennsylvania,	Northumberland,	Slightly injured by premature blast.
28.	Calvin Morris,	19	S.	....	Williamstown,	Dauphin,	Skull fractured; bumped between car and mule.
Mar. 1.	Robert Graham,	39	....	....	Williamstown,	Dauphin,	Back injured by fall of top coal.
4.	Harry Boughart,	14	S.	....	Hickory Ridge,	Northumberland,	Arm broken while playing about breaker.
6.	Thomas Washalefski,	....	....	....	Neilson	Northumberland,	Leg broken by fall of rock.
8.	Oscar Jones,	....	M.	....	Cameron	Northumberland	Leg broken by flying piece of coal from shot.
15.	Peter Gonschick,	27	....	....	Hickory Ridge,	Northumberland,	Collar bone broken by hoisting rope.
28.	William H. Moffett,	22	....	....	Williamstown,	Dauphin,	Leg badly squeezed between mine cars.
Apr. 4.	John N. Lauer,	....	M.	....	Cameron	Northumberland,	Burned by explosion of gas.
4.	William Zaleski,	....	....	....	Cameron	Northumberland,	Burned by explosion of gas.
5.	William H. Byerly,	....	M	6	Williamstown,	Dauphin,	Back and hip hurt by fall of slate.
17.	Alexander Schegle,	33	....	..	Hickory Ridge,	Northumberland,	Leg broken by fall of top slate.

TABLE NO. 5.—*Continued.*

Date of Accident, 1895.	Name of Person Injured.	Age.	Married.	Number of children.	Name of Colliery.	Location—County.	Nature and Cause of Accident in Brief.
Apr. 19.	Edward Fletcher,	....	....	....	Cameron,	Northumberland,	Head cut by fall of coal.
24.	Michael Moxey,	32	S.	....	Corbin,	Northumberland,	Leg bruised by fall of top slate.
25.	John Feltcash,	....	....	....	Hickory Ridge,	Northumberland,	Body hurt by fall of coal.
30.	Patrick Brennan,	58	S.	....	Pennsylvania,	Northumberland,	Leg broken by fall of coal.
30.	John Hodoba,	39	M.	6	Pennsylvania,	Northumberland,	Fingers mashed by fall of coal.
May 1.	Casper Bellfonte,	....	....	....	Locust Gap,	Northumberland,	Rib broken by fall of coal.
1.	Thomas Sharp,	....	....	....	Mid Valley,	Northumberland,	Leg bruised by falling down manway.
4.	Richard Lobb,	....	....	....	North Franklin,	Northumberland,	Body bruised and cut by fall of coal.
9.	Aaron Kuntzleman,	32	....	....	Williamstown,	Dauphin,	Leg broken by fall of slate.
21.	John Rohrback,	58	M.	....	Logan,	Columbia,	Leg cut off by moving mine cars.
24.	Ellesworth Wheary,	....	....	....	Burnside,	Northumberland,	Hand cut and bruised by fall of coal.
June 4.	Paul Yocum,	....	....	....	Burnside,	Northumberland,	Leg hurt; caught between timber and wagon.
7.	Samuel Veran,	33	M.	2	Neilson,	Northumberland,	Back badly hurt; squeezed between timber and buggy.
11.	John Finstock,	30	M.	2	Logan,	Columbia,	Leg broken by dumper falling on it.
25.	John Taminina,	32	S.	....	Pennsylvania,	Northumberland,	Burned by explosion of gas.
27.	Joseph Firestein,	....	....	....	Locust Spring,	Northumberland,	Eyes and body hurt by premature shot.
28.	Edward Knapp,	....	....	....	Reliance,	Northumberland,	Leg broken by being caught in breaker line shaft.
July 1.	Thomas Hill,	55	M.	6	Pennsylvania,	Northumberland,	Severely hurt by premature blast.
10.	Harry Spade,	....	....	....	Henry Clay,	Northumberland,	Collar bone and ribs broken by mine cars.
10.	John Vesalofski,	....	....	....	Sterling,	Northumberland,	Head and shoulders hurt by fall of top coal.
10.	Joe Rakus,	....	....	....	Alaska,	Northumberland,	Body bruised and cut by fall of top coal.
10.	Nicholas Garion,	....	....	....	Neilson,	Northumberland,	Severely burned by explosion of gas.
10.	Henry Osman,	....	....	....	Neilson,	Northumberland,	Slightly burned by explosion of gas.
10.	Joseph Munger,	....	....	....	Neilson,	Northumberland,	Slightly burned by explosion of gas.
10.	Frank Gumbulski,	....	....	....	Neilson,	Northumberland,	Slightly burned by explosion of gas.
15.	Mike Winski,	....	....	....	Monitor,	Northumberland,	Burned by explosion of gas.
15.	William Brosious,	....	....	....	Monitor,	Northumberland,	Burned by explosion of gas.
27.	John Smith,	....	....	....	Alaska,	Northumberland,	Collar bone broken; squeezed between wagon and prop.
30.	Peter Bellfonte,	....	M.	....	Pennsylvania,	Northumberland,	Face and hands burned by explosion of gas.
30.	Adam Toback,	....	S.	....	Pennsylvania,	Northumberland,	Face and hands burned by explosion of gas.
Aug. 1.	William Cawthern,	....	....	....	Cameron,	Northumberland,	Foot hurt by fall of rock.
3.	Irvin Ney,	....	....	....	Burnside,	Northumberland,	Foot broke by column pipe.
10.	Frank Cody, Sr.,	....	....	....	Sterling,	Northumberland,	Leg broken and body injured by fall of coal.

	12.	Henry Wetzel,			North Franklin,	Northumberland,	Leg broken by fall of coal.
	12.	William T. Williams,	40	M. 7	Hickory Swamp,	Northumberland,	Face cut and head bruised by explosion of shot.
	13.	James Carr,			Potts,	Schuylkill,	Arm broken and body injured; caught by wagon.
	13.	Francis Wagner,			Burnside,	Northumberland,	Fingers mashed by mine wagon.
	13.	Edward Dunlavey,	26	S.	Pennsylvania,	Northumberland	Finger cut off by door and pipe catching them.
	14.	Thomas Doyle,	49		Williamstown,	Dauphin,	Shoulder and hip hurt by fall of slate.
	19.	John Forlarney,	31	S.	Pennsylvania,	Northumberland,	Face and hands burned by gas.
	19.	Ezekiel Zamconie,	24	S.	Pennsylvania,	Northumberland,	Face and hands burned by gas.
	24.	Daniel Waters,	15	S.	Richards,	Northumberland,	Knee cap dislocated by mine wagon.
	26.	C. W. Gilham,			Sterling,	Northumberland,	Leg broken by rush of coal.
Sept.	5.	Frank Alcheskie,			Cameron,	Northumberland,	Back and head cut by flying pieces of coal.
	13.	Stanny Montuleski,			Monitor,	Northumberland,	Hands burned by ignited gas.
	13.	Joseph Coolco,			Monitor,	Northumberland,	Hands burned by ignited gas.
	14.	William R. Weitzel,			Cameron,	Northumberland,	Kicked on stomach by mule.
	14.	Joseph Long,			East,	Schuylkill,	Ribs broken while repairing gunboat.
	19.	Frank Grilla,	42	M.	Burnside,	Northumberland,	Back bruised by fall of coal.
	21.	Thomas Kane,	23	S.	Burnside,	Northumberland,	Leg broke by flying slate from shot.
	21.	C. Brennan,			Buck Ridge,	Northumberland,	Leg broken; caught between cars.
	23.	John Brennan,			Buck Ridge,	Northumberland,	Arm broken by kick from mule.
	24.	Frank Kurtz,	35	S.	Patterson,	Northumberland,	Leg broken by fall of coal.
	28.	Oliver Edwards,	18	S.	Hickory Ridge,	Northumberland,	Arm, leg and jaw broken by breaking of link in rope.
	28.	William Mangle,	16	S.	Hickory Ridge,	Northumberland,	Head and arm hurt by runaway wagons.
Oct.	1.	John Bruskie,			Cameron,	Northumberland,	Back injured by fall of coal.
	9.	Christ. Leamour,			North Ashland,	Columbia,	Burned by igniting a keg of powder.
	9.	Michael Snyder,			North Ashland,	Columbia,	Burned by igniting a keg of powder.
	9.	Joseph Kutrie,	53	M. 5	Hickory Ridge,	Northumberland,	Leg fractured by slipping from plank.
	9.	John McDonough,	50	M.	Logan,	Columbia,	Leg broken by lump of coal rolling on it.
	11.	Mike Jugas,	36	M.	Richards,	Northumberland,	Squeezed between railroad car and bin post.
	15.	Jacob Gearhardt,	35	M.	Richards,	Northumberland,	Eye cut by flying piece of metal.
	21.	William Laughlin,			North Ashland,	Columbia,	Rib fractured by fall of coal.
	21.	Joseph Wargo,	23	S.	Pennsylvania,	Northumberland,	Arm broken; caught between chute and wagon.
	19.	Joseph Grevomorage,			Mid Valley,	Northumberland,	Leg broken by loose car wheel rolling down slope.
	23.	Mike Dotsko,	25	M.	Pennsylvania,	Northumberland,	Head and hands burned by powder.
	23.	Charles Morris,	30	S.	Pennsylvania,	Northumberland,	Head and hands burned by powder.
	29.	John Derk,			Cameron,	Northumberland,	Arm crushed between car and timber.
	31.	Mike Bunschock,			Sterling,	Northumberland,	Back hurt and leg broken by fall of coal.
Nov.	4.	Michael Farley,			Merriam,	Northumberland,	Hand broken; caught between timber and pipe.
	6.	Jonathan M. Schoffstall,			Williamstown,	Dauphin,	Arm and neck hurt by fall of coal.
	6.	William Callahan,	38		Williamstown,	Dauphin,	Hips and back hurt by fall of coal.
	7.	John Washaleski,			Nesbon,	Northumberland,	Leg broken by fall of slate.
	8.	Michael Ambrose,	29	M.	Pennsylvania,	Northumberland,	Two fingers cut off by fall of coal.
	12.	Patrick B. Brennan,			Williamstown,	Dauphin,	Knee dislocated by slipping.
	14.	John Pogoselick,			Sterling,	Northumberland,	Collar bone broken by collar falling.
	25.	Alex. Winskie,	20	S.	Patterson,	Northumberland,	Leg broken; caught between mine cars.
	26.	Walter Lawrence,	27	M. 2	Williamstown,	Dauphin,	Burned by explosion of gas.
	26.	Jacob Weidel,	66	M. 6	Williamstown,	Dauphin,	Ribs and leg broken by fall of rock.
	30.	Richard Hall,	15	S.	Pennsylvania,	Northumberland,	Leg broken by car jumping from track.
Dec.	2.	William Shipp,			Cameron,	Northumberland,	Squeezed between prop and wagon.
	2.	Harvey Clouser,	26	M. 2	Williamstown,	Dauphin,	Leg broken by fall of slate.
	10.	John Panick,			Bear Valley,	Northumberland,	Leg broken; fell between wagons.
	10.	Michael Morgan,	46	M. 4	Mount Carmel,	Northumberland,	Ribs broken and back hurt by fall of rock.

EIGHTH ANTHRACITE DISTRICT.

(SCHUYLKILL COUNTY.)

Pottsville, Pa., February 15, 1896.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: I have the honor of herewith presenting my annual report as Inspector of Mines of the Eighth Anthracite District for the year 1895.

The number of lives lost during the year was 35, leaving 19 widows and 58 children to mourn the loss of husbands and fathers. This I am sorry to say is an increase of 15 fatal accidents over those of the year 1894, the increase being mainly due to falls of coal and roof and premature explosions of dynamite and powder. The majority of the accidents from falls of coal and roof have occurred in the safest looking places, where the general character of the main roof is good, but having occasional benches of slate between and overlaying the benches of coal, and where the veins average only from two to eight feet in thickness, which makes it easy to examine and pull down any overhanging pieces of coal or loose pieces of slate. Many of the accidents from this cause could be prevented, if the miners would more generally provide themselves with suitable bars, to be used for the purpose of pulling down any loose material met with. Many are not overly well provided with drills and are afraid of blunting or bending them by using them for pulling down loose pieces.

The number of non-fatal accidents was 124, an increase of 84 over those of the year 1894. This increase is mainly due to the fact, that they have been more fully reported this year. Many of them were of a trifling character.

The total product of coal for the year was 3,925,013 tons, an increase of 583,698 tons, over that of the year 1894. The quantity shipped to market was 3,672,873 tons; an increase of 584,079 tons over the year 1894.

In the total number of persons employed in and about the mines of this district, there was an increase of 672 persons over the year 1894.

The general condition of nearly all of the mines in this district at the close of the year was satisfactory. There are one or two that

are not in as good condition as they might be, but this is due to the inattention of the parties directly in charge, rather than to the operators or general management, who as a rule are anxious to have their collieries in as good and safe condition as possible, and in many cases go to a great deal of expense in providing the openings and appliances for their safe and successful operation.

Beside the usual tabulated statistics, I send a brief description of the improvements, the fatal accidents, and other matter which may be interesting or useful.

Yours very respectfully,

JOHN MAGUIRE,
Inspector of Mines.

The examination of applicants for certificates of qualification as mine foreman was held at the court house at Pottsville, in June, 1895. The board for the Eighth Anthracite District was composed of John Maguire, Inspector; Thos. Doyle, superintendent; Thomas Holihan, miner and David Tucker, miner.

The following named persons were recommended by the board to the Secretary of Internal Affairs for certificates of qualification as mine foreman and assistant mine foreman:

Mine Foreman, Francis Hale, Pottsville.
Mine Foreman, Thomas Keating, Middleport.
Mine Foreman, John Doran, Branchdale.
Mine Foreman, Martin Welsh, Tower City.
Mine Foreman, William Edmunds, Minersville.
Mine Foreman, Mich. Fitzpatrick, Heckscherville.
Mine Foreman, Frank Kessler, Forestville.
Mine Foreman, James Burkhart, Minersville.
Mine Foreman, Thomas Fudge, Coaldale.
Mine Foreman, Anthony Guilford, Tamaqua.
Mine Foreman, John G. Lewis, Minersville
Assistant Mine Foreman, William Lishman, St. Clair.

Improvements Made During the Year 1895.

The Lytle Colliery.

The water having been pumped out of the old workings east of this colliery to the fourth lift, the work of developing began with this year. A tunnel starting in the Primrose vein about one hundred yards west of the bottom of the fourth lift of the No. 2 Primrose slope, was driven north, cutting the Holmes, "Four Foot," White Ash, Black Heath and Skidmore veins, in the first five hundred feet, all in good condition, except the Holmes. The tunnel was continued

over four hundred feet beyond the "Skidmore," cutting several leaders. An air hole was driven to the surface, partly in the "Four Foot" and partly in the Holmes vein, on which a new eighteen foot diameter fan has been placed, driven by an engine 16x20 inches.

An overhead return air tunnel was driven from the "Four Foot" to the "Skidmore" vein. The No. 1 Primrose vein slope was continued down through the old workings to the fourth lift for a tender slope.

Some new machinery for the better preparation of coal was added to the breaker and shipments began in the latter part of September. There is yet a large body of water above in the old Dolbin colliery, White Ash and Holmes veins workings, which will be tapped when West White Ash gangway is driven far enough west to get below it; it will then require a hole to be driven up the pitch about four hundred feet to reach the water, which has a head of about two hundred and seventy-five feet. A very large amount of money has been required to pay the expenses of pumping the water out of several miles of abandoned workings, and to put the colliery in condition to ship coal, and it is to be hoped the owners will now enjoy a fair return for the time and money spent.

Albright Colliery.

The tunnel south from third lift of Black mine slope has been driven eight hundred feet farther, and has cut the second south dip of Black Mine, tunnel and Salem veins on south dip, the whole length of tunnel being about eleven hundred and fifty feet.

An air hole was driven over anticlinal in Black Mine vein. The water has been taken out of the Salem vein slope to bottom, a depth of about six hundred feet from surface, and the west gangway was reopened with a view of getting a hole from new tunnel in Black Mine slope up to it.

A new Jeanesville duplex pump with 36 inch cylinders, 36 inch stroke and 12 inch plungers, has ben put in pump room, which has been made in top rock on third lift of Black Mine slope.

Williams Colliery.

The sinking of the Spohn or Lewis vein slope, has been continued, striking the basin at a depth of 1,635 feet from surface, and 993 below old level. Two gangways are being worked west and one gangway east, and a ventilating fan 16 feet in diameter driven by an engine 12x24 inches has been erected.

Oak Hill Colliery.

A tunnel has been driven north from the bottom of the new shaft 382 feet long, cutting the Black Heath vein, twelve feet thick in good

condition, which will open up a large body of good coal. A new climax boiler of 300 horse power has been erected and connected to the flues of cylinder boilers to utilize the waste heat. This is the first boiler of this kind to be erected in this district.

Kaska-William Colliery.

The water has been taken out of the old Northdale slope and an air hole driven from shaft level connecting with it, on which a new ventilating fan eighteen feet in diameter, driven by an engine with fourteen inch cylinder and sixteen inch stroke, direct acting has been placed.

Morea Colliery.

A new air hole has been driven on south dip of Mammoth vein near western end of workings on which a new twelve foot diameter ventilating fan has been placed. A new Stockton pump with 36 inch cylinder, 48 inch stroke and 18 inch plunger has been added to drainage plant in slope. The new shaft has been completed to the Buck Mountain vein, making a total depth from surface of 443 feet, as follows:

Surface, wash, 9 feet; rock, 147 feet; 61 feet of coal, Mammoth vein. Surface, slate, 7 feet; 7 feet of coal, Skidmore vein. Surface, rock, 86 feet; 17 feet of coal, Seven Foot vein. Surface, rock, 76 feet; 17 feet of coal, Buck Mountain vein. Surface, slate, 16 feet for sump.

A new pair of engines with 22 inch cylinder, 36 inch stroke, geared, have been erected to hoist coal from shaft.

Roberts Colliery.

The tunnel south from bottom of Holmes vein slope, has been continued to a distance of 774 feet, cutting through both dips of the Church vein and the south dips of the Holmes and Mammoth veins, and will be continued to the Buck Mountain vein. A tunnel has also been driven north from Skidmore to Buck Mountain vein on north dip in slope level.

St. Clair Coal Company.

This company of which Mr. W. H. Taylor is president; Mr. W. W. Patterson, vice president and general manager; Mr. D. E. Taylor, treasurer and Mr. E. P. Kingsbury is secretary, is building a large breaker on the site of the old Eagle colliery breaker at St. Clair. They are opening a drift on Buck Mountain vein, on level of Philadelphia and Reading railroad north of breaker, and gangway is now driven east 100 yards. They are also sinking a shaft about two miles east of breaker, which is now down 100 feet; size of shaft,

12x24 feet. The shaft will be sunk to Buck Mountain vein, which they expect to cut about 200 feet from surface.

They are also taking water out of a trial slope, that was sunk some years ago a short distance west of the Silver Creek dam, with a view of opening work. A gravity plane has been made at the breaker, and about two miles of road graded from head of plane to new shaft. A gravity plane has also been made near shaft and about two miles of road graded to bring coal from slope near Silver Creek dam. They have also purchased the interest of Croxton and Donkin in the old Eagle colliery, and will work the Mammoth vein lately worked by that firm.

The Pine Hill Colliery.

The Pine Hill Coal Company has sunk a slope on Buck Mountain vein three hundred and forty feet long, from surface to the level of the lower Serrill water level tunnel. A pair of hoisting engines 14x30 inches have been erected at slope. A new breaker has been erected on the site of the old Black Heath colliery breaker close to the Lytle colliery branch of the Pennsylvania railroad about one and a half miles northwest of Minersville. The improvements are nearly completed and shipments will soon begin.

Howard Colliery.

E. C. White & Co., have pumped the water out of the Primrose vein slope of this colliery, which was drowned out in spring of 1894 and abandoned. A new breaker has been erected which is ready for operations to begin with the new year. This colliery is situated at Wadesville.

Little Diamond Colliery.

Near Minersville a slope 64 yards deep below the water level has been sunk on the Little Diamond vein.

Tuscarora Colliery.

Mr. J. J. Slattery has reopened the old Palmer water level tunnel on lands of the Lehigh Coal and Navigation Company at Tuscarora, and built a small breaker with a view of working small veins overlying the Mammoth which have not been worked.

Mt. Hope Colliery.

A tunnel two hundred feet long has been driven south from the "Seven Foot" vein to the "Four Foot" vein, cutting the vein three feet thick of good coal.

Improvements Made by the Philadelphia and Reading Coal and Iron Company.

Brookside Colliery.

A new slope is being sunk in the No. 4 vein, directly over the No. 3 slope, which is on the No. 5 Lykens Valley vein and is now nearly down to the water level gangway. At the old No. 1 slope a slope is being sunk in the basin towards the bottom of the No. 4 slope to work the coal remaining in the basin, and to use as a tender slope for the No. 4 slope. At the East Brookside No. 5 vein slope, a pair of first class hoisting engines with 45 inch cylinders, 60 inch stroke, first motion, with drum 18 feet diameter have been placed in service. A new slope has been started on the No. 4 vein for a tender slope. Eight new return flue boilers have been erected.

Middle Creek Colliery.

Tunnels have been driven from new lift of shaft to the Holmes and Primrose veins on the south, and to the Mammoth top and bottom benches on the north. The breaker is being built and will soon be ready for operation.

Otto Colliery.

A tunnel in White Ash slope plane level now in about 100 yards is being driven south through anticlinal to Mammoth vein. A slope on north dip of Primrose vein in "Mud" drift is being sunk and is now down 100 feet.

Glendower Colliery.

A new pump slope with a ten foot collar, fifteen foot spread and seven feet high is being sunk on Lelar vein and is now down 540 feet. A tunnel has been driven from the north to south dip of Church vein about 1,100 yards west of the Taylorville slope, second lift.

Richardson Colliery.

An overhead return air tunnel on level of first headings has been driven from No. 27 breast in south dip West Daniel, to the Crosby vein west south dip.

Thomaston Colliery.

A new double track slope is being sunk on Lelar vein and is now down 100 feet.

Wadesville Shaft.

A new shaft 12 feet by 25 feet divided into two compartments of 7 feet by 12 feet each and one compartment 9 feet by 12 feet, is being

sunk a short distance southwest of the old shaft; it is now down 28 feet. Four new return flue boilers have been erected.

Pine Forest Colliery.

A tunnel has been driven on first lift of the Primrose vein slope from the Orchard to the Diamond vein 289 feet long. Two new return flue boilers have been erected east of the breaker to supply steam for the new Buck Mountain slope.

Eagle Hill Colliery.

The tunnel north from new or fifth lift has been driven from the Skidmore to the Buck Mountain vein, a distance of 312 feet, cutting the Buck Mountain eight feet thick of good coal.

Silver Creek Colliery.

The water in the old Butler colliery which is north of the Silver Creek shaft has been successfully tapped by bore holes from the tunnel in old Neal slope which was extended for that purpose. The main tunnel north from bottom of shaft has been extended to five hundred and fifty feet from Skidmore vein with a view of cutting Buck Mountain vein. Several leaders have been cut but no workable vein.

Lehigh Coal and Navigation Company.

Colliery No. 8.

A slope has been started from the water level gangway in Mammoth vein to work the chain pillar below the water level gangways. The Primrose vein has been opened in water level tunnel and gangways are being driven.

Colliery No. 11.

A new traveling way for men and mules has been driven on Skidmore vein from bottom of shaft to the water level tunnel, a distance of 600 feet on pitch of twenty-two degrees. This is a great convenience and makes an available and good second outlet as the veins at this colliery are nearly vertical.

A new traveling way has also been made to surface about 2,800 feet east of shaft in Skidmore vein. Also one in west "D" gangway to surface between breasts Nos. 82 and 83. A drill hole has also been bored from surface to pump room at bottom of shaft, twelve inches in diameter and 560 feet deep to take steam from surface boiler plant to pumps.

Colliery No. 12.

The new slope on the "F" or Primrose vein has been sunk 93 yards and gangways for new lift turned, which opened up a good vein of

coal. A tunnel is being driven south across basin at bottom of old lift, and is now in 255 yards, having previously been driven 165 yards, and has about 200 yards yet to go.

Mine Fires.

Lehigh Coal and Navigation Company, colliery No. 10.

On July 12 a fire was discovered at the bottom of an old chute on what is known as the Old "Fiery" gangway, about four thousand feet west of the bottom of the slope. How the fire originated no one seemed to know, as no work had been done in this gangway for over a year, except to put some relief timber in gangway. After the fire in sight had been extinguished, an attempt was made to open the old chute, when a large body of fire rushed down from above. It was then decided to let this alone, keeping water on to prevent gangway timber from burning, and to drive a chute in the pillar outside of the fire and drive headings from the chute to get above the fire. Also as the vein was very thick, to drive a heading from counter gangway above to top rock, with a view of getting water in above the fire, or to find out how far it had got up the pitch. A large force of men was put on at driving headings and branch headings, and for a time it appeared doubtful whether the fire could be extinguished as the vein at this point was over 300 feet high and was supposed to have been extensively robbed. Fortunately however the fire as far as was yet known was confined to one breast, the pillars of which on both sides and above, being sufficient to prevent it from spreading. Water was put in this breast from above which cooled it off, but in order to be sure that the fire has been extinguished, chutes and headings are yet being driven through and around it.

Thomaston Colliery, Philadelphia and Reading Coal and Iron Company.

In 1891 a fire started in the west south dip Daniel vein counter gangway. The breasts from below ran through and brought the fire down to the lower gangway. After some time had been spent in trying to extinguish it the gangway and airways were sealed up and deprived of air. In June last the batteries were opened and the lower gangway has been reopened through the burned district and holes are now being driven up the pitch. They have gone through a great deal of burned material, but so far have found no fire, and it is thought that it is extinguished.

The Philadelphia and Reading Coal and Iron Company have sunk a rock slope 56 yards deep on dip of about 28 degrees through the top rock to the Daniel vein, a few feet above the water line west of the abandoned West Pine Knot colliery near Heckscherville. This

vein had been burning for several years, the openings and breaches having previously been silted. A gangway has been driven 50 yards east from bottom of slope through old gobs. Some burned material has been gone through, but no fire has been found as yet.

Colliery Abandoned.

The Beechwood colliery situated at Mt. Laffee which has been in operation for the last sixty years and which has been worked for the last twenty-three years by the Philadelphia and Reading Coal and Iron Company was stopped December 26, 1895. The pump and rails have been taken out of the underground slope, which will be allowed to fill with water. The water however will be kept out of the main slope until the workings of the new shaft, now being sunk at Wadesville are extended far enough west to tap it.

Description of Fatal Accidents by Falls of Coal and Roof.

August Brenner, a Polish miner, aged 28 years, was killed about two o'clock in the afternoon of January 8. He was working breast No. 20 in West Daniel vein gangway at Richardson colliery, with Charles Ditzell as a partner. The breast which had a pitch of 65 degrees was about finished and had struck free coal, and the miners were expecting the face to run and they were anxious to get their manways built close to face before it ran, so as to secure all the measurement they could. They had gotten the inside manway finished and were working on the outside one, when the face ran suddenly, catching Brenner in the breast side of the manway and Ditzell near upper juggler, covering both men with the loose coal. The breast ran through to level above, letting a small quantity of water down and filled the outside manway with loose coal for some distance. When help arrived it was found that the next breast outside had been drawn empty and there was no way to get at the men above except to draw the outside manway or to drive through loose coal across breast from inside manway near top. From the top of the inside manway, Ditzell could be heard calling and said his partner was near him and was dead. It was thought best not to disturb the coal in this outside manway, for fear that Ditzell would be killed by the moving coal, so men commenced to drive a heading through the loose coal from the inside manway. After working at this heading until the morning of the 10th, and not making much headway owing to the manway being so narrow that poles could not be turned long enough to catch the loose stuff, it was feared that Ditzell could not be reached by this heading in time to save his life, and it was then decided to open the outside manway by building a battery close to the stuff, so that it could be drawn gradually

and also to protect the men working at it, moving the battery up as the stuff was drawn out.

As the water was coming down this manway and as only one man was able to work at it at a time, this was necessarily slow work, Ditzell being 90 yards above the gangway. He was reached about 4 p. m. on the 10th, but owing to the position he was in and the care necessary to prevent the least disturbance of the loose coal by which he was surrounded, he was not taken out until 8 p. m. His right leg was badly crushed and he was very weak. How he survived for the 54 hours he was imprisoned is a wonder. Brenner's body was recovered on the afternoon of the 11th. He had no doubt been instantly killed.

While the fact of No. 19 breast being emptied had nothing to do with breast No. 20 running, yet had it been kept full and the inside manway made available for traveling as it should have been, these men could have been reached much sooner and with more safety to the rescuing party.

Matthew Morgan, a Polish miner, was killed at Greenwood No. 13 colliery on February 20. He was working a breast in west "C" gangway, vein 6 feet thick, and was sinking a hole for a juggler when a piece of overhanging coal fell upon him, injuring him so that he died shortly after being taken home.

David Liddle, a German laborer, was killed at the Bell colliery April 23. He was engaged with Wally Mader, a miner, robbing back the gangway. They had finished loading a wagon and had shoved it out from face, and were standing near face when a bunch of coal suddenly fell, knocking out the two inside props and the coal caught Liddle and covered him. He was dead before he could be taken out.

Daniel Schriver, a German miner, was killed at Blackwood colliery June 11. He was working with his father in breast No. 48 East Primrose vein. They were about sinking a hole for a juggler when Daniel started to cross the breast to get a point, as bottom was hard. When he got to about the middle of the breast a large piece of slate fell upon him killing him instantly. The piece that fell was about 7 feet wide by 12 feet in length and about 15 inches in the thickest part, starting with a feather edge at lower side and ending with a thin edge above.

Cyrus Zimmerman, an American miner, was killed at Lincoln colliery July 11. He was working on breast No. 36 East Plane No. 5 vein gangway. The vein at face was two feet seven inches thick with about one foot of bone above it, pitch 32 degrees. The top slate was not good and the breast had five rows of props, the upper row being about five feet from face of coal. He had fired two shots and was dressing loose coal off, when a large piece of bone fell on

him killing him instantly. The place was in good condition and well timbered, but a slip that the last shot had cut which was not seen by him, was the cause of the accident.

William Mitchell, an American miner, was fatally injured at Oak Hill colliery July 19, and died the same night. He was working in a breast in the West Black Heath, the vein being six feet thick, with a pitch of 30 degrees at the face and had started to drill a hole in the inside corner of the breast when a large piece of top bench that was overhanging, weighing nearly two tons, fell from a slip, crushing his leg very badly, causing him to loose much blood from the effects of which he died. The vein in this breast had many large slips running parallel with ribs and being intersected by others running across the face, which made it extremely hazardous to get under any overhanging pieces and required great care on the part of the miner to avert danger.

Elmer King, an American miner, was killed at West Brookside colliery September 30. He was engaged at robbing the chain pillar below the No. 7 lift gangway in No. 3 slope, with his two brothers as partners. They were working on night shift and had received their pay before going in and being anxious on this account to get out early they had worked hard for about two hours. There was some falling slate overhanging at face, which they tried to pull down, but as they had loose coal enough to finish their shift, they proposed leaving it hang, but it fell shortly afterwards and struck Elmer, and he fell on the sharp edge of a piece of loose slate in gob, breaking his back, causing death in a few minutes.

Joseph Bretz, an American miner, was killed at Lincoln colliery October 19, by a piece of slate falling upon him. He was working in breast No. 133 west fourth lift gangway; the No. 2 and No. 3 veins being worked together the No. 3 or underlying vein being 1 foot 8 inches thick, dividing slate 3 feet thick and the No. 2 vein 3 feet thick above. He had undermined in the No. 3 vein about 7 feet up in center of breast and had taken down one bench of dividing slate 18 inches thick. After leaving it stand for some time he got under it to undermine again, but had only struck a few blows with his pick when a large piece of the remaining slate fell upon him killing him instantly.

John Thomas, Welsh miner, was killed at Otto colliery November 7. He was working in breast plane West White Ash vein gangway, the vein being eleven feet thick on pitch of 19 degrees. He was drilling in west center of face of breast when a large slip of coal to his left fell out on him injuring him so badly that he died on the way home. In making examination of this breast, I found many loose pieces of coal hanging, which miners should have pulled down before working at face.

John Umbenhaur, an American miner, was killed at Lincoln colliery November 29, by a fall of slate and clod. He was engaged skipping pillars in east second lift gangway No. 1 vein; the regular thickness of vein was six feet, but at this place the top rock made an abrupt jump of about four feet then went down as abruptly, leaving a space between in the form of an arch, in which there was about one foot of soft slate next to top. While working, an overhanging piece of this slate fell on him injuring him so badly that he died while being taken out.

Frank Messner, an American miner, was killed at West Brookside colliery December 5. He was getting ready to skip a pillar in No. 7 west gangway No. 3 slope. The vein was pinched very thin for about thirty feet above first heading; at this point the top rock made an abrupt jump thickening the vein to about twelve feet. They had just finished laying the chute up to where the vein thickened, when he took a pick and started to loosen coal, but had only struck a few blows when a quantity of soft slippy coal fell on him injuring him so badly that he died in a few minutes.

Senara Deitrick, a German miner, was killed at West Brookside colliery December 12. He was working in breast west gangway No. 5 vein, inside slope. Vein was 12 feet thick, pitch 25 degrees. The top rock was good except close to face, where a piece that started with feather edge, and which was about 8 feet wide across face protraded. They had worked top bench of coal off for about 10 feet ahead of bottom bench and knew this piece was loose, and had been trying to pull it down but failed. Deitrick started to work under it when it fell, killing him instantly.

Fatal Accidents from Explosions of Gas.

Patrick F. Bakey was killed by an explosion of gas at Lytle colliery about 5 o'clock in the morning, July 8. He was engaged in running a pump at the second or McDonald level of the No. 2 Primrose slope. One shift only being on. He generally worked by day, but as there was to be a change made in a steam pipe on Sunday, the 7th, which would necessitate the stopping of the fan also the steam for pumps, he worked on Saturday night and had water pumped out at 6 o'clock on Sunday morning when he left for home with the understanding that he would not be required again before 7 o'clock on Monday morning. The steam pipes were not completed until nearly 5 o'clock on Monday morning when the fan was started. Bakey arrived at the colliery just in time to assist in starting the fan, shortly after which he went down the slope to start the pump, fearing that water might have overflowed the sump and was running down to lower levels. The fire boss had not arrived at the colliery yet and

the outside foreman warned him to be careful, as he knew the fan had just started. He replied that he could take care of himself as he had a safety lamp. He had been down but a short time when an explosion occurred and he was found dead between two batteries between the slope and upcast hole, and his safety lamp was found hanging near the pump. He had been forbidden to take a naked light inside of these batteries at any time, and as the sump was inside of them, it appeared that at this time after starting his pump he went in to see how much water was in the sump and carried a naked light, thus causing his death. Had he waited on top of slope ten minutes longer, the gas would have all passed out, as there was no work opened on lower levels but gangway and headings.

John and Joseph Frankenstein, brothers, were fatally burned by an explosion of gas at Beechwood colliery November 8th, and died on the 9th. They were working in breast No. 39, third lift, west Seven Foot vein gangway. The fire boss reported about 18 inches of gas in face of breast that morning, and told the men not to do anything at face until a new door, which was being erected to take the place of one that had been damaged by cars and was leaking some air, was finished, when more air would be turned on, and he would get the gas out. A heading was being driven twenty-three feet from face, in which there was room to place a set of timber which they could work at in the meantime. The fire boss visited the place again while they were working in the heading, and had left them go into other breasts telling them he would be back shortly as the door was nearly finished and he would get the gas out. After he left they drilled a hole and charged it in the heading and started to brush the gas out of the breast so as to fire a shot, leaving their safety lamps below them in downcast side of brattice. After they had brushed some time, one of them got a safety lamp and was in the act of raising it to see if the gas had left, when it ignited from the safety lamp and exploded with above result. The safety lamps were carefully examined after the explosion and were found to be in good condition. The coroner's inquest failed to determine the cause of the accident, but from the appearance of the gauze of one of the lamps I am of the opinion that there was some oil on it which ignited when the gas was brushed on to the lamp. These men had the reputation of being most careful and experienced miners. The jury censured the fire boss for allowing them to go into the breast until the gas had been removed.

Fatal Accidents by Explosions of Dynamite and Powder and Premature Explosions of Blasts.

On the morning of January 14, John Tood, Hungarian, employed as stripping boss at the No. 10 colliery, Lehigh Coal and Navigation

Company, was instantly killed by an explosion of dynamite. He wanted to use some dynamite about the time the men started to work, but it was frozen and he built a wood fire about seventy-five feet back from where the men were working in the cut and tried to thaw the dynamite by holding it over the fire. John Madrass, one of the Hungarian laborers went to him and told him he was doing wrong, but Tood told him he was not afraid. About two minutes later the dynamite exploded blowing Tood's mangled body fifty feet away.

Roderick F. Burns was severely burned by the explosion of a full keg of powder at Pine Forest colliery, March 22, and died March 24. He had just taken a new keg of powder up the breast to a battery near top heading where powder was kept, and was in the act of pouring powder from the keg into a can, having the keg under his left arm, when it exploded, either from him having his lamp too close or from a lighted pipe; no one saw the accident but Burns himself, who acknowledged it was his own fault.

Patrick Kelly, miner, aged 64 years was severely injured by the premature explosion of a blast at Pine Forest colliery March 26, and died same evening. He was driving a narrow hole from face of breast and was only four yards above a heading. He lighted a shot which exploded before he got to the heading. As the place was damp it was thought that he shortened the match on squib.

John Holden, miner, was severely injured by the premature explosion of a blast April 8 at Pine Forest colliery, and died April 11, having been unconscious from the time of the accident until he died. He was working in a breast which was up ninety yards above the gangway and twenty-nine feet above last heading, and he lighted a shot at face of breast which exploded before he had turned to leave the place. As the above two accidents occurred nearly together and only one breast being between them, I examined the squibs being used, which were all right, and would have given ample time for them to have gotten away from a shot, if the matches had not been tampered with.

On May 6 a peculiar and distressing accident occurred at the Albright colliery, by which Thomas Flood, machine runner and James Lidaback, chargeman, lost their lives. They were employed in driving an air tunnel about ten yards up the pitch above the main tunnel and were working on night shift. When they went to work that evening, the day shift was about firing a round of shots, using fuse to fire with, for fear of breaking the brattice in lower or main tunnel if an electric battery was used. They had drilled fourteen holes, charged and fired the six bottom ones, then charged the remaining eight and fired them, both shifts having been in lower tun-

nel and they counted the shots as they were fired. After all had been fired, the day shift left for home, it being between five and six o'clock. The night shift then commenced to work and cleared the debris back from face and started to drill again; Flood and Lidaback setting their machine up near left rib of tunnel and Thomas Callahan and John Sommbulski setting their machine near right rib of tunnel. Each party had bored six holes and Flood and Lidaback had started their seventh having it in about two inches, when an explosion occurred blowing a small piece of rock off under their drill, killing Flood instantly and severely injuring Lidaback, who died on the evening of the 7th of May. Callahan and Sommbulski were only slightly injured. The face of tunnel after being cleared of debris from shots fired by day shift was nicely squared up, which induced the men to think that each shot had done its full duty; but it was evident that there was a small piece of unexploded dynamite remaining in the bottom of one of the holes which their drill afterwards struck.

John Wensey, a Polish miner, was instantly killed by the premature explosion of a blast at Glendower colliery, November 23. He was working in gangway and had charged a hole close to face and had told his laborer to take their tools back. The laborer had only gotten a short distance away when the shot exploded. It appeared that he lighted the shot with a naked light and it exploded while he was yet standing over it.

Fatal Accidents by Mine Cars.

Stephen R. Brennan, bottom man at the Taylorville slope of the Glendower colliery, was severely injured March 4 by being struck by two empty cars which were run over top of slope without having hoisting chains attached. His right arm was cut off at shoulder and he died March 7. One of the regular top men was absent on that day and another who was recommended to the boss as a good top man put in his place, the assistant boss staid with him some time to show him how to throw chains off when wagons came to top and instructing him in the use of safety blocks. All went well until about 1.40 p. m. when both top men failed to get their chains on, as empty cars were run in to top of slope, and the safety blocks being fastened open, the cars went down slope with terrific force striking Brennan at the bottom.

William Dunlap, a driver aged 17 years, employed at bottom of Primrose vein slope, Eagle Hill colliery, was severely injured early on the morning of June 18, and died the same evening at the Miners' Hospital at Ashland. There were some cars standing in the back switch at bottom, and he was pulling a loaded car in from turnout

against them and was caught between the bumpers. He had been driving only about one week, having previously worked about the bottom as a coupler for about two years.

George Cormaintz, a Hungarian laborer, employed on dirt bank at York Farm colliery was injured June 22, by being caught between locomotive and dirt dumper. The locomotive pushed four loaded dumpers out to near end of bank and had stopped, as some men were repairing the track and were not ready for the engine to push cars out to the place where they wished to dump them. A rigid coupling about four feet long was used between engine and dumpers to keep the overhanging end of dumpers away from the engine. As the engine was about stopping, he got on bumper and drew the coupling pin; the cars being on a grade ran back and caught him between engine and projecting end of dumper. He walked home apparently not seriously injured, but died the following day, leaving a wife and three children in Hungary.

Peter McHugh, a gangway laborer, was killed at the No. 12 colliery Lehigh Coal and Navigation Company, July 10. The colliery was not being operated on that day, the gangway men and some repair men only having been at work. The driver had left his mule near face of gangway and had gone out some distance to haul some timber up a counter chute with another mule. Not getting back by the time the gangway wagon was loaded, McHugh said he would haul it out. The miner advised him not to do it, but he started out with the car and not returning as soon as expected the miner went out and found him dead on turnout about 250 yards from face of gangway. The empty cars at outer end of turnout were below the frog and he had been caught between them and the loaded cars.

William Merriman was killed at Lytle colliery about one hundred yards from the bottom of the Primrose vein No. 2 slope in west third lift Primrose gangway, December 23. He was employed as a laborer, but on this day the team driver was absent and he was sent to take the place, as he was accustomed to driving. Not getting back from the bottom with the empty trip as soon as expected, the fire boss started out to find the cause and found him lying dead under the first car of empty trip, which was off the track. Having been at the colliery at the time, the Inspector made an examination at once and found that there were no obstacles in the gangway by which he could have been tripped. The gangway was large and roomy without any chutes extending over it by which he could have been caught, and the indications were that he had been running beside of the mules and had been trying to step on front end of the cars and had slipped and fell.

Fatal Accidents by Falling Down Manways and Slopes.

John Walco, an Austrian miner, was killed at Blackwood colliery, April 1, by falling down a manway of breast No. 2 Skidmore vein east gangway. The breast was up 175 feet on pitch of 75 degrees, the manway being about three feet wide and three and a half feet high. His butty, Gamba Salvador, said that he was working in the inside manway and Walco was in the outside one. He heard a noise and called to Walco but getting no response went down and found him lying dead at bottom of manway.

George Keely was killed at Morea colliery, November 6, by falling down the tender slope. He was employed as a fireman outside on night shift. As fresh water was scarce they were pumping water from a bore hole inside for use at boilers. About 10 o'clock at night the tank on surface was overflowing and wishing to save the water, Keely went to top of slope to call down to the pump man to stop pumping, and failing to attract the pump man's attention he went down the slope a few yards and began rapping on one of the pipes, and by some means he slipped and fell down the slope which has an average dip of about fifty-nine degrees and is about 265 feet deep. He carried a large torch lamp which in falling scattered the oil and set fire to the timber in the slope. The pump man finding the smoke going down, went to the bottom of the slope and saw the fire and called for help to extinguish it. After the fire had been extinguished, Keely's body was found at the bottom of the slope with his neck broken. There was a speaking tube to the bottom of the slope from the engine house, but he no doubt thought he could attract the engineer's attention better by rapping on the pipes as the pump house is a few yards from bottom of slope.

Fatal Accidents by Breaker Machinery.

John Conroy, a breaker boy, aged 14 years, was killed at the Eagle Hill colliery on May 20. He was engaged to watch the scraper lines under the breaker. A few minutes before the accident occurred he was seen standing near the end of the scraper line at south end of the breaker. A Hungarian laborer who was shoveling dirt a few yards away heard him scream and saw that his arm had been caught by the scrapers, but before the machinery could be stopped his head was drawn in between the chain wheel and plate, killing him instantly. The scraper trough was three and a half feet above the level of the ground on which he was standing and it was supposed that he had been putting his hand on the scrapers as they were moving, until his arm was caught by one of the buckets, which drew him in.

Francis Spancake, a breaker boy, aged 14 years, had one of his legs severely injured at Lincoln colliery on December 21, by it having been caught between driving wheel and rope. He was employed as a slate picker but part of his duty was to watch slate chutes, and when slate would stop in them to start it. To do this he had to pass under the hopper near where the driving rope was running. He was found lying near the wheel with his leg badly injured. It was amputated after he reached home, and he died shortly afterwards. About two weeks before the accident one of the men in the breaker caught him holding his foot on this rope until a groove was worn in his shoe and notified the chute boss who should have discharged the boy at that time.

Deaths from Miscellaneous Causes.

Edwin Evans, a loader, 20 years old, received a cut on one of his hands by a piece of coal at Pine Forest colliery on February 24. He worked until February 28, having been engaged in cutting ice in drift on Sunday, February 24. Blood poisoning set in and he died March 5. It is supposed he got some mine water in the cut.

Peter Maurer, a gangway laborer, at Good Spring colliery was prying at a collar on March 4, when the bar slipped striking him heavily on the breast. He died from the effects on March 8.

William Morgan, a loader, was killed at Eagle Hill colliery June 13. He was loading from a counter chute and was standing on top of a car which was about loaded when a piece of rock in the form of a cube which measured two feet each way, rolled down the chute with great force knocking him off the car to lower side of gangway where his body was found. The lower end of the chute was empty and this lump having been dumped in at the top, on account of its shape rolled over stuff that was above until it reached the empty space which allowed it to pass under the battery.

Henry Morgan, a laborer, was injured at the Pine Hill colliery December 9. He was helping to put some timber in the slope near the top, and as they were letting some timber down, a piece of frozen earth was disturbed which rolled down and struck him. He died at the Pottsville Hospital on the 10th from the injuries.

Classification of Fatal and Non-Fatal Accidents for 1895.

Causes of Accidents.	Fatal inside.	Fatal outside.	Non-fatal inside.	Non-fatal outside.	Total inside and outside.
Falls of coal and roof,	12		22		34
Explosions of fire damp,			30		33
By mine cars and dirt dumpers,		1	24	5	30
By premature explosions of blasts,			4		7
By explosion of dynamite,		1	2		6
By explosion of blasting powder,	1		1		2
By falling down slope,	1				1
By falling down manway,	1		3		4
By bar slipping and striking him on breast,	1				1
By lump of coal running down chute,	1				1
By fall of earth at top of slope and on stripping,	1			1	2
By cars running down slope without rope having been attached,	1				1
By blood poisoning after receiving cut,	1				1
By starting batteries,			6		6
By timbering and unloading timber,			2		3
By coal flying from pick,					
By coal flying from blast,			1		1
By ice falling down slope,			1		1
By handling T-rail,			1		1
Injured by mules,			1		1
Struck with hammer,			1		1
By pick running in leg,			1		1
By breaker machinery,		2		5	7
By falling off car and steps,					
Injured between railroad cars,					
Loading machinery,				1	1
Total accidents,	31	4	106	18	159

Table showing quantity of coal produced, number of fatal accidents and number of tons of coal produced per life lost by the different companies and individual firms during the year 1895.

	Quantity of coal produced in tons.	Number of fatal accidents.	Quantity of coal produced in tons per life lost.
Philadelphia and Reading Coal and Iron Company,	2,092,526	21	99,644
Lehigh Coal and Navigation Company,	636,013	2	318,006½
Lehigh Valley Coal Company,	140,857	3	46,952
Dodson Coal Company,	278,539	1	278,539
Lytle Coal Company,	40,213	2	20,106½
Albright Coal Company,	62,334	2	31,167
Individual firms,	674,731	4	168,682½
Total,	3,925,013	35	112,143

Table showing the number of each class of employes in Eighth Anthracite District for 1895:

Inside.

Inside foremen,	132
Miners,	2,705
Miners' laborers,	1,113
All other company men,	2,181
Drivers and runners,	433
Door boys and helpers,	161
Total inside in 1895,	6,725
Total inside in 1894,	6,281
Increase in 1895,	444

Outside.

Outside foremen,	64
Blacksmiths and carpenters,	321
Engineers and firemen,	498
Slate pickers,	1,623
All other company men,	2,101
Superintendents and clerks,	74
Total outside in 1895,	4,681
Total outside in 1894,	4,453
Increase in 1895,	228

Summary.

Tons of coal produced,	3,925,013
Tons of coal shipped and sold at mines,	3,672,873
Tons of coal used at mines for steam and other purposes,	252,140
Tons of coal produced by washeries, which are included in total production,	248,416
Number of fatal accidents,	35
Number of non-fatal accidents,	124
Number of wives left widows,	19
Number of children left fatherless,	58
Number of persons employed,	11,306
Number of kegs of powder used,	55,147

Number of pounds of dynamite used,	315,177
Number of steam boilers in use,	773
Number of horses and mules,	1,258
Number of mine locomotives,	17
Tons of coal produced per fatal accident,	112,143
Tons of coal produced per non-fatal accidents,	31,653
Tons of coal produced per each employe,	347
Number of mines in operation,	48
Number of washeries in operation,	10

TABLE 1.—*Showing location, etc, of collieries in the Eighth Anthracite District for the year ending December 31, 1895.*

Name of Colliery.	Name of Operator.	Location—Schuylkill County.	Name of Superintendent.	Postoffice Address.
West Brookside,	Philadelphia and Reading Coal & Iron Co.,	Tower City,		
Lincoln,	Philadelphia and Reading Coal & Iron Co.,	Lorberry,		
Good Spring,	Philadelphia and Reading Coal & Iron Co.,	Good Spring,		
Middle Creek,	Philadelphia and Reading Coal & Iron Co.,	Tremont,		
Otto,	Philadelphia and Reading Coal & Iron Co.,	Branchdale,		
Phoenix Park No. 3,	Philadelphia and Reading Coal & Iron Co.,	Phoenix Park,		
Thomaston,	Philadelphia and Reading Coal & Iron Co.,	Heckscherville,		
Richardson,	Philadelphia and Reading Coal & Iron Co.,	Glen Carbon,	Gen. supt., R. C. Luther; mining supt., John Veith,	Pottsville.
Glendower,	Philadelphia and Reading Coal & Iron Co.,	Glendower,		
Beechwood,	Philadelphia and Reading Coal & Iron Co.,	Mt. Laffee,		
Pine Forest,	Philadelphia and Reading Coal & Iron Co.,	St. Clair,		
Eagle Hill,	Philadelphia and Reading Coal & Iron Co.,	Cornbula,		
Silver Creek,	Philadelphia and Reading Coal & Iron Co.,	Silver Creek,		
Wadesville,	Philadelphia and Reading Coal & Iron Co.,	Wadesville,		
Kalmia washery,	Philadelphia and Reading Coal & Iron Co.,	Tremont township,		
Oakdale washery,	Philadelphia and Reading Coal & Iron Co.,	Glen Carbon,		
L. C. & N. Co., Colliery No. 8,	Lehigh Coal and Navigation Company,	Coal Dale,		
L. C. & N. Co., Colliery No. 10,	Lehigh Coal and Navigation Company,	Rahn township,	Supt., W. D. Zehner; asst. supt., Baird Snyder, Jr.	Landsford.
L. C. & N. Co., Colliery No 11	Lehigh Coal and Navigation Company,	Rahn township,		
L. C. & N. Co., Colliery No. 12,	Lehigh Coal and Navigation Company,	Rahn township,		
York Farm,	Lehigh Valley Coal Company,	Pottsville,	W. A. Lathrop,	Wilkes-Barre.
Blackwood,	Lehigh Valley Coal Company,	Blackwood,	W. A. Lathrop,	Wilkes-Barre.
Morea,	Dodson Coal Company,	Morea,	E. L. Bullock, gen. supt.,	Audenried.
Kaska-William,	Dodson Coal Company,	Middleport,	D. J. Thomas, supt.,	Morea.
St. Clair Coal Company,	St. Clair Coal Company,	St. Clair,	W. W. Patterson,	Pottsville.
Greenwood No. 13,	Beddall Brothers,	Tamaqua,	M. A. Gerber,	Tamaqua.
East Lehigh,	Mitchell & Shepp,	Tamaqua,	Joseph Mitchell,	Tamaqua.
West Lehigh,	Dunkleberger & Young,	Tamaqua,	John Young,	Tamaqua.
Oak Hill,	Leisenring & Co.,	Minersville,	Walter Leisenring,	Minersville.
Lytle,	Lytle Coal Company,	Minersville,	William H. Lewis,	Shaft P. O.
Albright,	Albright Coal Company,	Llewellyn,	James Archbald, Jr.,	Pottsvile.
Chamberlain,	Chamberlain Coal Company,	St. Clair,	Alfred Smith,	Pottsville.
Ellsworth,	Davis Brothers,	Broad Mountain,	J. H. Davis,	St. Clair.
Venus washery,	Davis Brothers,	Broad Mountain,	J. H. Davis,	St. Clair.
Roberts,	Roberts Coal Company,	Newcastle,	T. D. Jones,	Hazleton.
Howard,	E. C. White & Co.,	Wadesville,	Rich. White,	St. Clair.
Red Ash,	George Troutman & Son,	Wadesville,	George Troutman,	Wade P. O.
Mt. Hope,	Linderman & Co.,	St. Clair,	S. D. Kynor,	Pottsville.
Eagle,	Croxton & Donkin,	St. Clair,	Thomas Croxton,	St. Clair.
Williams,	Williams Coal Company,	Fishback,	W. T. Smyth,	Pottsville.
East Ridge,	East Ridge Coal Company,	Heckscherville,	P. J. Courtenay,	Minersville.
Pine Hill,	Pine Hill Coal Company,	Minersville,	William Adams,	Minersville.
Lorberry,	Losch, Moore & Co.,	Lorberry,	Simon Moore,	Tremont.

Tamaqua,	Isaac Christ,	Tamaqua,	Isaac Christ,	Tamaqua.
Little Diamond,	F. J. Simon & Co.,	Allentown	Harry Meyers,	Minersville.
Bell,	Gorman & Co.,	Brockville,	Joseph Gorman,	Port Carbon.
Sebastopol,	Joseph H. Deming,	St. Clair,	Joseph H. Deming,	St. Clair.
Oakley,	Beddall & Burchill,	Tuscarora,	George Burchill,	Tuscarora.
Tuscarora,	J. J. Slattery,	Tuscarora,	J. J. Slattery,	Tuscarora.
Woodside,	Beddow & McCready,	Forestville,	Harry McCready,	Minersville.
Black Heath,	Jones Brothers,	Cass township,	Llewellyn Jones,	Minersville.
Broad Mountain washery,	Broad Mountain Coal Company,	Newcastle,	James J. Whims,	St. Clair.
Rolfe washery,	Fernwood Coal Company,	Forestville,	Harry Meyers,	Minersville.
Wolfe Creek washery,	Stoddard Coal Company,	Minersville,	J. I. Hollenbach,	Pottsville.
Forestville washery,	Forestville Coal Company,	Forestville,	C. P. Sherk,	Lebanon.
Palmer washery,	Tyler, McTurk & Co.,	New Philadelphia,	Pat. Kelly,	Silver Creek P. O
Reynolds washery,	Shindle & Beard,	Walker township,	C. S. Shinier,	Tamaqua.
Manhattan washery,	Manhattan Coal Company,	Forestville,	Martin Otterbein,	Pottsville.

TABLE No. 2.—*Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder and pounds of dynamite used in the Eighth Anthracite District for the year ending December 31, 1895.*

Names of Collieries.	Location—Schuylkill County.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Pounds of dynamite used.
West Brookside	Tower City	317,296	292,825	235.1	820	3	8	3,718	71	88	3	12,900
Lincoln	Lorberry	372,256	358,382	231.4	651	4	3	5,554	39	76	.....	6,303
Good Spring	Good Spring	121,144	113,928	194.1	349	1	.....	3,547	22	30	.....	8,244
Middle Creek	Tremont	.....	.....	.....	72	.....	.....	.....	20	7	.....	17,677
Otto	Branchdale	165,100	152,237	208.15	579	1	1	2,042	38	78	1	24,687
Phoenix Park No. 2	Phoenix Park	77,042	72,460	164.8	259	.....	.....	963	22	38	.....	3,917
Thomaston	Heckscherville	146,236	130,700	207.25	468	.....	2	4,118	46	60	.....	6,900
Richardson	Glen Carbon	110,668	99,548	206.55	191	1	3	791	33	29	.....	10,514
Glendower	Glendower	133,284	120,392	202.75	427	3	2	2,306	38	81	1	11,287
Beechwood	Mt. Laffee	73,806	67,829	199.9	265	2	1	684	18	39	.....	1,467
Pine Forest	St. Clair	87,785	81,002	171.85	259	4	2	2,994	21	31	.....	4,597
Eagle Hill	Eagle Hill	131,167	121,439	162.5	458	3	6	1,262	32	62	.....	10,853
Silver Creek	Silver Creek	289,252	281,805	208.5	743	.....	6	4,407	22	42	.....	8,500
Wadesville	Wadesville	.....	.....	.....	25	.....	.....	.....	12	6	.....	500
Kalmia washery	Tremont township	53,907	52,780	258.6	28	.....	.....	.....	3	.....	.....	.....
Oakdale washery	Glen Carbon	13,589	13,589	101.25	12	.....	.....	.....	.....	.....	.....	.....
L. C. & Nav. Co., Colliery No. 8	Coal Dale	208,924	204,442	191.7	442	.....	8	600	12	71	.....	29,275
L. C. & Nav. Co., Colliery No. 10	Rahn township	177,795	168,240	184.75	488	1	8	900	26	74	1	8,000
L. C. & Nav. Co., Colliery No. 11	Rahn township	159,582	152,390	160.5	367	.....	22	1,560	21	56	2	14,000
L. C. & Nav. Co., Colliery No. 12	Rahn township	89,712	84,020	197.5	279	1	3	1,500	15	48	.....	6,500
York Farm	Pottsville	69,048	64,518	128.4	394	1	1	900	27	26	1	13,665
Blackwood	Blackwood	71,809	70,722	145.4	346	2	3	1,525	11	38	2	8,577
Morea	Morea	187,195	168,434	189.1	427	1	4	2,577	37	56	2	17,986
Kaska-William	Middleport	91,444	77,637	189.4	255	.....	5	1,200	21	23	.....	6,000
St. Clair Coal Company	St. Clair	.....	.....	.....	157	.....	.....	150	8	4	.....	3,000
Greenwood No. 13	Tamaqua	79,260	77,066	212	242	1	1	1,395	5	13	1	3,950
East Lehigh	Tamaqua	4,516	4,216	192	22	.....	.....	161	1	3	.....	200
West Lehigh	Tamaqua	18,245	17,425	205	61	.....	.....	822	3	8	.....	1,000
Oak Hill	Minersville	189,789	181,272	245	370	1	9	3,678	20	33	.....	8,800
Lytle	Minersville	40,232	26,509	96	350	2	3	925	43	76	.....	19,200

Albright,	Llewellyn,	62,334	45,842	202	183	2	3	660	11	15	.....	13,300
Chamberlain,	St. Clair,	21,940	21,612	78	193	.....	9	400	6	17	.....	6,000
Ellsworth,	Broad Mountain,	26,432	26,152	280	71	....	.....	125	4	4	.....	3,500
Venus washery,	Broad Mountain,	18,761	18,411	184	13	....	.....	.....	2	1	.....	.....
Roberts,	Newcastle township,	21,239	19,239	95.4	166	....	2	547	7	12	.....	2,250
Howard,	Wadesville,	.....	.....	.....	30	....	.....	.....	4	2	.....	.....
Red Ash,	Wadesville,	3,800	3,618	162	15	....	.....	180	3	4	.....	.....
Mt. Hope,	St. Clair,	51,960	46,960	197.5	142	.....	3	480	11	10	2	6,225
Eagle,	St. Clair,	3,559	3,047	167	21	.....	.....	105	2	4	.....	300
Williams,	Fishback,	22,700	22,244	170	140	....	3	620	2	8	.....	.....
East Ridge,	Heckscherville,	17,528	16,828	149	132	....	.....	955	2	8	.....	1,150
Pine Hill,	Minersville,	180	150	.....	35	1	.....	75	3	4	.....	200
Lorberry,	Lorberry,	13,448	12,992	159	44	....	2	170	1	6	.....	350
Tamaqua,	Tamaqua	988	888	74	30	....	.....	31	1	3	.....	250
Little Diamond,	Minersville,	4,224	4,011	113	20	....	.....	35	3	2	.....	900
Bell,	Brockville,	3,097	2,755	114.9	15	1	.....	35	2	2	.....	1,750
Sebastopol,	St. Clair,	8,120	7,846	273.5	38	.....	.....	90	1	16	.....	100
Oakley,	Tuscarora,	2,042	2,042	128	9	....	.....	30	1	1	.....	.....
Tuscarora,	Tuscarora,	1,000	1,000	60	19	....	.....	100	1	1	.....	50
Woodside,	Forestville,	1,554	1,384	113	10	..	.....	65	1	1	.....	.....
Black Heath,	Cass township,	4,010	3,779	229	9	....	.....	165	1	3	.....	.....
Broad Mountain washery,	Newcastle township,	31,702	31,248	227	33	....	.....	.....	2	.....	.....	.....
Rolfe washery,	Forestville,	14,277	14,082	95	11	..	.....	.....	2	.....	.....	.....
Wolfe Creek washery,	Minersville,	56,469	50,984	206	46	....	.....	.....	5	3	.....	50
Forestville washery,	Forestville,	8,258	8,018	80	15	....	1	.....	3	1	.....	.....
Palmer washery,	New Philadelphia,	35,493	35,091	201.5	40	..	.....	.....	2	5	1	.....
Reynolds washery,	Walker township,	4,677	4,555	61	13	....	.....	.....	2	.....	.....	.....
Manhattan washery,	Forestville,	11,292	11,168	124	13	....	.....	.....	1	1	.....	.....
Total	.....	3,925,013	3,672,873	9,076.8	11,346	33	124	37,147	773	1,278	17	316,227

TABLE No. 3.—*Showing the number of each class of employes at each colliery in the Eighth Anthracite District during the year 1895.*

Names of Collieries.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							Grand total, inside and outside.
	Inside foremen.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Door boys and helpers.	Total inside.	Outside foremen.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All other company men.	Superintendents, bookkeepers and clerks.	Total outside.	
West Brookside,	9	179	78	202	37	16	521	2	19	36	115	125	2	299	820
Lincoln,	7	196	79	141	23	1	447	2	11	23	82	84	2	204	651
Good Spring,	4	87	29	56	6	2	184	1	6	12	85	59	2	165	349
Middle Creek,	1	4	14	15	1	1	36	1	9	11	.....	14	.....	36	72
Otto,	9	150	51	99	22	10	341	2	18	31	86	105	2	238	579
Phoenix Park No. 3,	4	89	11	46	11	3	164	1	9	11	40	33	1	95	259
Thomaston,	6	142	25	93	16	12	294	2	6	27	71	66	1	174	468
Richardson,	4	66	9	73	6	9	167	1	7	18	33	63	2	124	291
Glendower,	5	109	38	88	12	5	257	2	8	19	57	82	2	170	427
Beechwood,	4	71	26	60	18	8	187	1	8	10	24	29	1	78	265
Pine Forest,	7	88	35	55	12	.....	197	2	7	18	81	51	2	156	353
Eagle Hill,	8	99	63	90	16	13	289	2	10	18	65	72	2	169	458
Silver Creek,	6	241	83	140	18	8	496	2	18	20	98	107	2	247	743
Wadesville,	.....	.....	.....	.....	.....	.....	.....	.....	3	6	.....	16	.....	25	25
Kalmia washery,	.....	.....	.....	.....	.....	.....	.....	1	3	2	10	9	1	28	28
Oakdale washery,	.....	.....	.....	.....	.....	.....	.....	1	.....	2	1	8	.....	12	12
Lehigh Coal and Navigation Co., Colliery No. 8,	5	85	26	150	34	11	310	1	7	11	51	62	.....	132	442
Lehigh Coal and Navigation Co., Colliery No. 10,	6	65	42	133	24	21	291	1	5	18	89	84	.....	197	488
Lehigh Coal and Navigation Co., Colliery No. 11,	4	69	24	104	15	7	223	1	5	17	55	66	.....	144	367
Lehigh Coal and Navigation Co., Colliery No. 12,	3	71	38	65	20	9	206	1	2	11	41	18	.....	73	279
York Farm,	2	104	40	108	7	4	265	1	15	15	25	70	3	129	394
Blackwood,	2	91	17	52	20	1	183	1	17	13	53	76	3	163	346
Morea,	2	61	17	72	17	5	174	3	12	19	63	152	4	253	427
Kaska-William,	1	59	27	51	10	2	150	1	7	14	41	40	2	105	255
St. Clair Coal Company,	1	6	6	25	.....	.....	38	1	32	20	.....	74	2	119	157
Greenwood No. 13,	1	26	27	5	1	1	76	1	12	2	28	31	2	86	142
East Lehigh,	1	6	2	.....	1	.....	10	1	.....	1	5	4	1	12	22

West Lehigh	1	19	3	2	3	1	29	1	2	3	15	10	1	32	61
Oak Hill	4	114	65	42	13	5	248	1	8	11	72	27	3	122	370
Lytle	4	97	52	44	11	.....	208	2	16	20	51	54	5	142	350
Albright	1	38	27	32	8	.....	106	1	6	12	17	38	3	77	183
Chamberlain	1	40	40	22	9	.....	113	1	3	9	21	42	2	80	193
Ellsworth	2	8	3	14	2	.....	31	1	1	3	14	20	1	40	71
Venus washery	.....	.....	.....	.....	.....	.....	.....	1	.....	1	3	8	.....	13	13
Roberts	1	39	10	40	6	3	99	1	4	4	13	44	1	67	166
Howard	.....	.....	.....	2	.....	.....	2	1	14	2	.....	10	1	28	30
Red Ash	1	7	1	1	.....	.....	10	.....	.....	1	2	2	.....	5	15
Mt. Hope	1	25	11	25	7	1	69	1	3	10	22	36	2	74	143
Eagle	1	5	4	.....	1	.....	11	1	1	2	4	2	.....	10	21
Williams	3	37	40	15	4	2	99	1	3	5	12	18	2	41	140
East Ridge	1	70	9	12	4	.....	76	1	4	3	25	20	3	56	132
Pine Hill	1	3	6	.....	.....	.....	10	1	8	2	.....	13	1	25	35
Lorberry	1	9	12	3	2	.....	27	.....	2	1	8	5	1	17	44
Tamaqua	1	12	6	.....	1	.....	20	1	.....	1	4	4	.....	10	30
Little Diamond	1	4	4	.....	.....	.....	9	1	1	3	3	3	.....	11	20
Bell	1	5	.....	.....	1	.....	7	1	1	1	5	.....	.....	8	15
Sebastopol	1	8	5	2	2	.....	18	1	.....	1	4	13	1	20	38
Oakley	1	2	2	.....	1	.....	6	.....	.....	.....	2	1	.....	3	9
Tuscarora	1	7	1	1	1	.....	11	1	1	1	6	2	.....	12	19
Woodside	1	2	3	.....	1	.....	7	1	.....	.....	1	1	.....	3	10
Black Heath	.....	2	1	.....	1	.....	4	.....	.....	1	1	2	1	5	9
Broad Mountain washery	.....	.....	.....	.....	.....	.....	.....	1	.....	2	10	18	2	33	33
Rolfe washery	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	9	.....	11	11
Wolfe Creek washery	.....	.....	.....	.....	.....	.....	.....	1	1	3	11	28	2	46	46
Forestville washery	.....	.....	.....	.....	.....	.....	.....	1	.....	1	2	10	1	15	15
Palmer washery	.....	.....	.....	.....	.....	.....	.....	1	2	2	2	33	.....	40	40
Reynolds washery	.....	.....	.....	.....	.....	.....	.....	1	1	1	2	8	.....	13	13
Manhattan washery	.....	.....	.....	.....	.....	.....	.....	1	.....	1	1	10	.....	13	13
Total	132	2,705	1,113	2,181	433	161	6,725	64	321	498	1,623	2,101	74	4,681	11,306

TABLE NO. 4.—*List of fatal accidents that occurred in and about the mines of the Eighth Anthracite District for the year ending December 31, 1895.*

Date of Accident, 1895.	Name of Person Injured	Occupation.	Age.	Married or single.	Number of orphans.	Name of Colliery.	Location—County.	Date of Investigation.	Nature and Cause of Accident in Brief.
Jan. 8,	August Brenner,	Miner,	28	S.		Richardson,	Schuylkill,	Jan. 9,	A Pole; killed by face of breast running, burying him with coal.
14,	John Tood,	Stripping boss,	24	M.		L. C. & Nav. No. 10,	Schuylkill,	15,	Hungarian; was thawing dynamite over fire when it exploded, killing him instantly.
Feb. 20,	Matthew Morgan,	Miner	28	M.	2	Greenwood No. 13,	Schuylkill,	Feb. 21.	A Pole; killed by fall of coal in breast.
Mar. 4,	Stephen R. Brenna,	Bottom man,	22	S.		Glendower (Taylorville slope.)	Schuylkill,	8,	Irish; injured at bottom of slope by two empty cars which were pushed over head of slope without having chains attached; arm amputated and died March 7.
5,	Edwin Evans,	Loader,	20	S.		Pine Forest,	Schuylkill,	Mar. 11.	American; received a cut on hand February 24, worked several days after, when blood poisoning set in and he died March 5.
8,	Peter Maurer,	Laborer,	45	M.	5	Good Spring,	Schuylkill,	9,	German; on March 4th was prying at a collar when bar slipped, striking him on breast; died March 8.
22,	Roderick F. Burns,	Miner,	26	S.		Pine Forest,	Schuylkill	26,	Irish; he was pouring powder from keg into a can when it exploded, burning him so severely that he died on March 24.
26,	Patrick Kelly,	Miner,	64	M.	5	Pine Forest	Schuylkill,	26.	Irish; severely injured by the premature explosion of a blast; died same evening.
Apr. 1,	John Walco,	Miner,	36	S.		Blackwood,	Schuylkill	Apr. 3,	Austrian; killed by falling down manway of breast.
8,	John Holden,	Miner,	41	M.	3	Pine Forest,	Schuylkill,	10.	Irish; severely injured by the premature explosion of blast; died April 11.

	23,	David Liddle,	Laborer,	37	M.	3	Bell	Schuylkill		24,	German; killed by a fall of coal, which knocked out two props, the coal rushed on him and buried him.
May	6,	Thomas Flood,	Machine runner,	33	S.		Albright,	Schuylkill,	May	7,	Irish; killed by explosion of dynamite in tunnel.
	6,	James Lidaback,	Chargeman,	30	M.	1	Albright	Schuylkill,		7,	English; seriously injured by explosion of dynamite in tunnel; died on the 7th.
	20,	John Conroy,	Breaker boy,	14	S.		Eagle Hill	Schuylkill		21,	American; was engaged watching scraper line under breaker; it is supposed that he put his hand on scraper chain while it was in motion, when his arm was caught, which drew his head in to the wheel, killing him instantly.
June	11,	Daniel Schriver,	Miner,	24	M.	1	Blackwood	Schuylkill,	June	12,	German; killed by a large piece of slate falling on him in breast.
	13,	William Morgan,	Loader,	25	S.		Eagle Hill	Schuylkill		14,	American; struck by a large lump of coal which rolled down chute, injuring him so severely that he died shortly afterwards.
	18,	William Dunlap,	Driver,	17	S.		Eagle Hill,	Schuylkill		20,	American; severely injured by being caught between mine cars at bottom of slope; died same evening.
	22,	George Cormaintz,	Laborer,	40	M.	3	York Farm	Schuylkill		24,	Hungarian, squeezed between car and locomotive on dirt bank; walked home apparently not much hurt, but died on the 23d.
July	1,	Cyrus Zimmerman,	Miner,	17	W.	3	Lincoln,	Schuylkill	July	2,	American; killed by a piece of bony coal and slate falling on him
	8,	Patrick F. Bakey,	Pumpman,		M.	3	Lytle	Schuylkill,		9,	Irish; killed by explosion of gas
	10,	Peter McHugh,	Laborer,	21	S.		L. C. & Nav., No. 12	Schuylkill		11,	Irish; killed by being squeezed between mine cars.
	19,	William Mitchell,	Miner,	24	S.		Oak Hill,	Schuylkill		22,	American; a piece of overhanging top coal fell on him, injuring him severely; died same evening.
Sept.	30,	Elmer King,	Miner,	22	S.		West Brookside	Schuylkill	Oct.	2,	American; killed by a piece of falling slate striking him; he fell backwards on sharp piece of slate in gob, which broke his back.
Oct.	19,	Joseph Bretz,	Miner,	42	M.	7	[illegible]	[illegible]		21	American; killed by a piece of slate falling on him in breast.
Nov.	6,	George Keeley,	Fireman,	27	M.		Morea	[illegible]	Nov.	8,	American, killed by falling down tender slope; he went down slope a few yards to call pumpman, when he slipped and fell to the bottom.
	7,	John Thomas,	Miner,	0	M		Otto,	[illegible]		8,	Welsh; killed by a fall of coal at face of breast.

TABLE NO. 4.—*Continued.*

Date of Accident, 1895.	Name of Person Injured.	Occupation.	Age.	Married or single.	Number of orphans.	Name of Colliery.	Location—County.	Date of Investigation.	Nature and Cause of Accident in Brief.
Nov. 8,	John Frankenstein,	Miner,	45	W.	4	Beechwood,	Schuylkill,	Nov. 11.	American; burned by explosion of gas; died November 9.
8.	Joseph Frankenstein,	Miner,	43	M.	5	Beechwood,	Schuylkill,	11.	American; burned by explosion of gas; died November 9.
23.	John Wensey,	Miner,	40	M.	6	Glendower,	Schuylkill,	25,	Pole; killed by premature explosion of blast at face of gangway.
29,	John Umbenhaur,	Miner,	43	M.	3	Lincoln,	Schuylkill,	30.	American; killed by fall of slate and clod while robbing pillars.
Dec. 5.	Frank Messner,	Miner,	27	M.	3	West Brookside,	Schuylkill,	Dec. 6.	American; killed by a piece of overhanging coal falling on him.
9.	Henry Snyder,	Laborer,	38	S.	....	Pine Hill,	Schuylkill,	10.	German; was engaged for time being near top of slope, when a piece of earth rolled from side on him, and he died on the 10th at the Pottsville Hospital.
12,	Senara Deitrick,	Miner,	45	M.	1	West Brookside,	Schuylkill,	13,	German; killed by a piece of rock falling on him at face of breast.
21,	Francis Spancake,	Breaker boy,	14	S.	....	Lincoln,	Schuylkill,	24,	American; leg caught between rope and wheel in breaker; leg was amputated; he died same day.
23,	William Merriman,	Laborer,	21	M.	2	Lytle,	Schuylkill,	23,	American; was driving team in absence of regular driver; was found dead under cars about 100 yards from foot of slope; supposed to have slipped in trying to get on front of cars while they were in motion.

Table No. 5.—*List of non-fatal accidents that occurred in and about the mines of the Eighth Anthracite District for the year ending December 31, 1895.*

Date of Accident.	Name of Person Injured.	Name of Colliery.	Location—Schuylkill County.	Occupation.	Nature and Cause of Accident in Brief.
Jan. 2,	Peter Paulko,	Morea,	Morea,	Laborer,	Leg broken by a rock rolling down embankment in stripping.
7,	Anthony Hisco,	Eagle Hill,	Eagle Hill,	Laborer,	Hand broken; piece of timber fell on it.
8,	Charles Ditzell,	Richardson,	Glen Carbon,	Miner,	Leg and hip badly bruised by being caught in rush of coal at face of breast; he was buried in coal and was under it fifty-four hours before being rescued.
8,	Robert Findlay,	L. C. Nav., No. 11,	Rahn township,	Driver,	Side injured by being caught between car and door frame.
15,	Steve Tompkins,	L. C. Nav., No. 11,	Rahn township,	Miner,	Top of thumb cut off while making wedge.
23,	William E. Davis,	L. C. & Nav., No. 8,	Coaldale,	Miner,	Burned by explosion of gas.
23,	Joseph Shovelin,	L. C. & Nav., No. 8,	Coaldale,	Miner,	Burned by explosion of gas.
Feb. 5,	Thomas Gauntlet,	Blackwood,	Blackwood,	Driver,	Collar bone broken; mule crushed him against a prop.
5,	Mich. Shafts,	Blackwood,	Blackwood,	Outside laborer,	Thumb cut off; dumper box fell back and caught it.
5,	Edward Dunmoyer,	Blackwood,	Blackwood,	Repairman,	Shoulder dislocated; fell down steps in breaker.
7,	Jerry Delay,	L. C. & Nav., No. 11,	Rahn township,	Roadman,	Top of finger cut off while handling T-rails.
9,	Thomas S. Lewis,	Oak Hill,	Minersville,	Inside foreman,	Ankle broken by a piece of ice rolling down slope.
11,	John Jones,	L. C. & Nav., No. 10,	Rahn township,	Jig runner,	Arm broken and head cut by being caught in jig.
11,	William Rice,	Oak Hill,	Minersville,	Laborer,	Face badly injured by explosion of a piece of dynamite; he was digging a ditch near tunnel and struck dynamite with pick; it is supposed the dynamite had been put in ditch to thaw and had been forgotten.
14,	Patrick Brown,	Chamberlain,	St. Clair,	Laborer,	Toes mashed; slipped while spragging cars at top of slope and car ran over his foot.
15,	John Kline,	L. C. & Nav., No. 11,	Rahn township,	Loader,	Back and head injured by being caught by coal in battery.

TABLE No. 5.—*Continued.*

Date of Accident.	Name of Person Injured.	Name of Colliery.	Location—Schuylkill County.	Occupation.	Nature and Cause of Accident in Brief.
Feb. 18,	Frank Dusky,	Kaska-William,	Middleport	Miner,	Injured by rush of coal while starting battery.
21,	Philip McGuire,	Albright,	Llewellyn,	Laborer,	Leg broken; was tightening scraper chain while it was in motion and was caught by scrapers.
22,	William Edwards,	Oak Hill,	Minersville,	Laborer,	Injured by the premature explosion of a blast.
26,	John Latenbaugh,	L. C. & Nav., No. 8,	Coaldale,	Laborer,	Injured by a piece of slate falling on him.
Mar. 4,	William H. Jewell,	L. C. & Nav., No. 10,	Rahn township,	Laborer,	Top of finger cut off between wagon and timber.
7,	John Davis,	L. C. & Nav., No. 10,	Rahn township,	Miner,	End of finger cut off by coal falling on it.
21,	John Deegan,	Morea,	Morea,	Miner,	Leg broken by a piece of coal falling on it.
22,	Fred. Lush	L. C. & Nav., No. 10,	Rahn township,	Loader,	Hand cut by being caught between piece of rock and chute lever.
26,	Patrick Dowd,	Kaska-William,	Middleport,	Miner,	Slightly burned by gas.
Apr. 3,	John Wertz,	Lincoln,	Lorberry,	Miner,	Back injured by fall of coal.
4,	Dan Stone, Jr.,	Kaska-William,	Middleport,	Laborer,	Burned by explosion of powder while making a cartridge.
4,	William McElroy,	L. C. & Nav., No. 10,	Rahn township,	Miner,	Eye cut by a piece of coal flying from pick.
11,	Peter Donahoe,	Forestville washery,	Forestville,	Feeding rolls,	Leg crushed in rolls; was afterwards amputated above knee.
16,	John Findlay,	L. C. & Nav., No. 11,	Rahn township,	Loader,	Face and eyes injured by blast in battery.
18,	Edward Hadesty,	Greenwood No. 13,	Tamaqua,	Breaker boy,	Arm broken; fell on belt in breaker.
23,	William Seiler,	Lincoln,	Lorberry,	Laborer,	Toe mashed by a piece of slate falling on it.
26,	Joseph Murphy,	L. C. & Nav., No. 12,	Rahn township,	Miner,	Collar bone broken by being caught by end of chute; was riding in empty car.
May 3,	Valentine Passin,	Kaska-William,	Middleport,	Miner,	Burned by explosion of gas; went to face with naked light.
3,	Daniel Shields,	Kaska-William,	Middleport	Miner,	
6,	Thomas Callahan,	Albright,	Llewellyn,	Machine runner,	Slightly injured by explosion of hidden dynamite in piece of drill hole left in face of tunnel from preceding round of holes.
6,	John Sommbolski,	Albright,	Llewellyn	Machine helper,	
10,	David Clemence,	Oak Hill,	Minersville,	Miner,	Ribs broken by fall of slate while removing a prop.

	10,	M. Zimmerman,	Oak Hill,	Minersville,	Miner,	Back injured by fall of slate whilst removing a prop.
	16,	Dan Boyle,	L. C. & Nav., No. 8,	Coaldale,	Driver,	Foot bruised; fell and car ran over his foot.
June	7,	David J. Williams,	Chamberlain,	St. Clair,	Miner,	Hands and face slightly burned by explosion of gas.
	17,	Noah Watkins,	L. C. & Nav., No. 8,	Coaldale,	Driver,	Leg broken; team turned and caught him between cars.
	20,	Mich. Cullen,	L. C. & Nav., No. 11,	Rahn township,	Topman at shaft,	Leg injured by being caught between empty cars.
	21,	Rufus Rowe,	Lorberry,	Lorberry,	Laborer,	Wrist dislocated by being caught between wagon and sprag.
July	9,	John Rooney,	Pine Forest,	St. Clair,	Miner,	Leg hurt by a piece of coal falling on it.
	12,	John Kousko,	L. C. & Nav., No. 12,	Rahn township,	Laborer,	Leg broken; was cleaning slope when a plank fell from above and struck him.
	15,	Thomas Morgan,	Eagle Hill,	Eagle Hill,	Miner,	Arm injured by falling in chute.
	15,	James McDyre,	L. C. & Nav., No. 11,	Rahn township,	Miner,	Face and hands burned by an explosion of gas.
	15,	Nich. Fulmer,	L. C. & Nav., No. 11,	Rahn township,	Miner,	Face and hands burned by an explosion of gas.
	17,	Charles Levereski,	Eagle Hill,	Eagle Hill,	Miner,	Finger cut off by coal falling on it.
	17,	Felix Gubalinski,	Beechwood,	Mt. Laffee,	Miner,	Head and back injured by coal falling on him.
	17,	Frank Kennedy,	Silver Creek shaft,	Silver Creek,	Laborer,	Hand injured; struck by a hammer.
	18,	John Armstrong,	Eagle Hill,	Eagle Hill,	Driver,	Arm broken by being bumped by mine car.
	19,	Martin Molovinda,	Eagle Hill,	Eagle Hill,	Tipman,	Injured by being caught between car and timber.
	19,	William Evans,	L. C. & Nav., No. 11,	Rahn township,	Driver,	Finger mashed by being caught between cars.
	22,	John Keeney,	Lincoln,	Lorberry,	Loader,	Leg broken; slipped on rail and fell under a wagon whilst running it down slant.
	23,	John Purcell,	Glendower,	Glendower,	Teamster,	Finger mashed by a belt pulley while loading it on wagon.
	24,	Frank Hyer,	Pine Forest,	St. Clair,	Miner,	Legs injured by coal falling on them.
	26,	William J. Lipsett,	Richardson,	Glen Carbon,	Miner,	Leg injured by pick running into it.
	29,	William Smith,	L. C. & Nav., No. 8,	Coaldale,	Loader,	Squeezed between car and door frame.
	30,	William Watts,	Lytle,	Minersville,	Driver,	Hand crushed by being caught between bumpers of mine cars.
	30,	Morgan Rowlands,	Lytle,	Minersville,	Miner,	Leg broken and hand injured; scaffold gave way, causing a prop to fall on them.
	30,	Charles Boden,	Lytle,	Minersville,	Miner,	
	31,	John Roberts,	Morea,	Morea,	Driver,	Leg badly bruised by being caught between bumpers of mine cars whilst unhitching his mules.
	31,	Edward Murphy,	Glendower,	Glendower,	Oiler,	Shoulder blade broken by being struck by a lever while helping to unload timber.
Aug.	2,	Charles Lempo,	Roberts,	Dark Water,	Laborer,	Injured by being squeezed between mine cars at breaker.
	6,	James Farrell,	Lorberry,	Lorberry,	Slate picker,	Leg injured by being caught in belt pulley; was riding on belt.
	12,	Edward Dougherty,	Mt. Hope,	St. Clair,	Miner,	Crushed about hips between mine car and timber.
	12,	Martin Roberts,	York Farm,	Pottsville,	Miner,	Leg broken by a piece of slate falling on it.

18-10-95

TABLE No. 5.—*Continued.*

Date of Accident.		Name of Person Injured.	Name of Colliery.	Location in Schuylkill County.	Occupation.	Nature and Cause of Accident in Brief.
Aug.	20.	Joseph Veola,	Richardson,	Glen Carbon,	Laborer	Side injured by a plank falling down manway on him.
	27.	Rich. Holmes,	L. C. & Nav., No. 11,	Rahn township,	Miner,	Hand cut by a piece of coal falling on it.
	27.	James Andrews,	L. C. & Nav., No. 11,	Rahn township,	Miner,	Eye cut by a piece of coal flying from pick.
	28.	Frank Risoski,	Oak Hill,	Minersville,	Miner,	Leg injured by fall of coal.
Sept.	3.	Robert Gillaspie,	L. C. & Nav., No. 11,	Rahn township,	Loader,	Hand cut by being caught between starting bar and prop.
	10.	John Batuskey,	L. C. & Nav., No. 16,	Rahn township,	Laborer,	Leg broken by being caught between cars while uncoupling them at top of breaker whilst they were in motion.
	14.	Albert Weist,	East Brookside,	Tower City,	Miner,	Hands and face burned by explosion of gas.
	14.	Joseph Bowers,	East Brookside,	Tower City,	Miner,	Hands and face burned by explosion of gas.
	14.	Aaron Scheively,	East Brookside,	Tower City,	Laborer,	Hands and face burned and leg broken by explosion of gas.
	14.	Fred. Woll,	East Brookside,	Tower City,	Laborer,	Hands and face burned by explosion of gas.
	14.	Ray Spittle,	East Brookside,	Tower City,	Fan boy,	Face cut by flying coal from explosion of gas; they had left fan stand for some time near face of gangway until the gas had accumulated, then they started fan while having a naked light a short distance away.
	17.	Dan Shellhammer,	L. C. & Nav., No. 11,	Rahn township,	Miner,	Arm injured by falling down chute.
	18.	Mich. Lipshaw,	Williams,	Fishback,	Miner,	Burned by an explosion of gas; was using naked light.
	20.	Mich. Merlun,	Thomaston,	Heckscherville,	Miner,	Leg broken by a piece of slate falling on it.
Oct.	1.	John Shiminski,	Oak Hill,	Minersville,	Miner,	Burned by gas; had fired a shot which blocked downcast manway; they then went to dinner and afterwards went to face of breast with naked light, when an explosion of gas occurred.
	1.	Anthony Shiminski,	Oak Hill,	Minersville,	Miner,	
	9.	John Bowen,	L. C. & Nav., No. 11,	Rahn township,	Miner,	Leg injured by being struck by a piece of coal.

	11,	Joseph Foster,	Chamberlain,	St. Clair,	Miner,	Burned by explosion of gas; went to face of breast with naked light.
	11,	John Reese,	Chamberlain,	St. Clair,	Miner,	Burned by explosion of gas; went to face of breast with naked light.
	12,	Peter Boyle,	L. C. & Nav., No. 8	Coaldale,	Miner,	Eye cut by a piece of coal from pick.
	14,	George Griffiths,	Otto,	Branchdale,	Bottom man,	Leg broken; struck by car at bottom of slope.
	19,	Mike Ledina,	L. C. & Nav., No. 10,	Rahn township,	Laborer,	Foot injured by piece of slate falling on it.
	22,	James Ruddy,	Silver Creek shaft,	Silver Creek,	Car loader,	Hand mashed by being caught between bumpers of cars while coupling.
	22,	Edward Higgins,	Mt. Hope,	St. Clair,	Driver,	Leg broken by being struck by car which jumped the track.
	28,	George Farrell,	Mt. Hope,	St. Clair,	Locomotive engineer,	Hand injured by being caught between wheels and tongues.
Nov.	6,	Edward Damby,	Silver Creek shaft,	Silver Creek,	Coal inspector,	Fell from car and broke collar bone.
	6,	James O'Neal No. 2,	Eagle Hill,	Eagle Hill,	Miner,	Leg broken by a fall of coal.
	6,	John L. Snyder,	East Brookside,	Tower City,	Miner,	Leg broken by a fall of coal.
	8,	William McNulty,	Chamberlain,	St. Clair,	Miner,	Injured by explosion of blast; they had charged two holes and fired one, went back to see what it had done, when the other shot exploded, injuring them.
	8,	Frank McNulty,	Chamberlain,	St. Clair,	Miner,	
	8,	Thomas McNulty,	Chamberlain,	St. Clair,	Miner,	
	12,	Peter Mitchell,	Silver Creek shaft,	Silver Creek,	Miner,	Hands burned by explosion of gas.
	15,	John G. Boyle,	L. C. & Nav., No. 8,	Coaldale,	Bottom man,	Leg crushed; was running car to bottom, when another car followed and struck him.
	18,	William J. Hoff,	West Brookside,	Tower City,	Car loader,	Arm and hand badly injured by being caught between bumpers of cars.
	18,	William E. Tompkins,	L. C. & Nav., No. 11,	Rahn township,	Miner,	Face and eyes cut by flying coal from a blast.
	20,	John Sullivan,	L. C. & Nav., No. 11,	Rahn township,	Miner,	Foot injured by a piece of coal falling on it.
	21,	Samuel Bone,	L. C. & Nav., No. 10,	Rahn township,	Miner,	Back injured by a prop falling on him; he had stood prop without fastening it and it fell on him.
	26,	Andrew Gaumo,	Morea,	Morea,	Laborer,	Injured by being caught between bumpers of cars on slate bank.
	28,	Evan Evans,	Williams,	Fishback,	Miner,	Burned by explosion of gas.
	28,	John Mishanny,	Williams,	Fishback,	Laborer,	Burned by explosion of gas.
	30,	James Patterson,	Chamberlain,	St. Clair,	Miner,	Hands and face burned by explosion of gas.
Dec.	2,	Martin Derr,	L. C. & Nav., No. 12,	Rahn township,	Starter,	Back injured while starting battery.
	2,	Harmony Richardson,	Chamberlain,	St. Clair,	Driver,	Three ribs fractured; a mule turned while he was unhitching it and caught him between cars.
	4,	M. Reminsufski,	Oak Hill,	Minersville,	Miner,	Back injured by fall of coal.
	7,	John White,	Thomaston,	Heckscherville,	Laborer,	Hand injured by being caught between wagon and pipe.
	9,	Daniel Klinger,	West Brookside,	Tower City,	Miner,	Slightly burned by explosion of gas.
	10,	John Wasnoski,	Roberts,	Dark Water,	Loader,	Injured by falling down airhole.

TABLE NO. 5.—*Continued.*

Date of Accident	Name of Person Injured.	Name of Colliery.	Location—Schuylkill County.	Occupation.	Nature and Cause of Accident in Brief.
Dec. 11,	William Dally,	L. C. & Nav., No. 11,	Rahn township,	Fire boss,	Burned by explosion of gas; Williams and Miller were told by fire boss in the morning that there was gas in their breast and that he would go in shortly and get it out; in the meantime, they went into breast and started to brush it out, when fire boss went up to heading on his return with naked light and fired gas; Morrison and Bowen had gone into the breast to see the gas being brushed out.
11,	Edward Williams,	L. C. & Nav., No. 11,	Rahn township,	Miner,	
11,	Thomas Miller,	L. C. & Nav., No. 11,	Rahn township,	Miner,	
11,	Matthew Morrison,	L. C. & Nav., No. 11,	Rahn township,	Miner,	
11,	John Bowen,	L. C. & Nav., No. 11,	Rahn township,	Miner,	
20,	John Holywood,	Silver Creek shaft,	Silver Creek,	Miner,	Slightly burned by gas.
20,	Peter Kurtz,	L. C. & Nav., No. 11,	Rahn township,	Timber laborer,	Injured by collar falling on him.
24,	Mike Reese,	Silver Creek shaft,	Silver Creek,	Miner,	Slightly burned by gas.

BITUMINOUS MINE DISTRICTS.

FIRST BITUMINOUS DISTRICT.

(ALLEGHENY, FAYETTE, WASHINGTON AND WESTMORELAND COUNTIES.)

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: I have the honor to present, for your approval, my annual report as Inspector of Mines for the First Bituminous Coal District for the year ending December 31, 1895.

In the body of the report, each mine in the district is briefly described, also a report on their condition as regards ventilation and drainage. The usual tables accompany the report, with a record of the fatal and non-fatal accidents. A short statement only of the latter is given, but the former are treated with a more extended notice, to this, the reader is referred.

The fatal accidents were 25 and the non-fatal ones 66. By the former, fifteen wives were made widows and forty-one children fatherless. The same number of fatal accidents occurred this year as in 1894, but the non-fatal ones show a decrease of 23.

The total production of coal in the district was 5,539,951 tons, an increase of 257,770 tons over that of the year 1894. The total shipment was 5,525,057 tons, an increase of 247,953 tons over that of the previous year.

From the report it will be seen, that a life was lost for every 443 persons employed, and one for every 221,598 tons of coal mined.

One person was injured to every 167 persons employed, and every 83,938 tons of coal mined.

In conclusion I will say that, the mines of the district are still being improved, both in ventilation and drainage.

All of which is respectfully submitted.

HENRY LOUTTIT,
Inspector of Mines.

Monongahela, Pa., March 14, 1896.

The following mining statistics have been compiled from the operators annual reports to this office for the year ending December 31, 1895.

Number of mines operated during the year, ...	71
Number of tons, run of mine, of coal mined, ...	5,539,951
Number of tons of coal shipped, ...	5,525,057

Number of days worked,	8,968
Number of miners employed,	8,836
Number of other persons employed,	2,250
Total number of persons employed,	11,086
Number of horses and mules,	675
Number of mine locomotives,	3
Number of steam boilers,	133
Number of kegs of powder reported as used in the mines,	14,935
Number of fatal accidents,	25
Number of non-fatal accidents,	66
Number of tons of coal produced per each fatal accident,	221,598
Number of tons of coal produced per each non-fatal accident,	83,938
Number of wives made widows by these casualties,	15
Number of children orphaned by these casualties,	41
Number of persons employed per each fatal accident,	443+
Number of persons employed per each non-fatal accident,	167+

Cause of Accidents.	Fatal.	Non-fatal.
By fall of slate,	13	24
By fall of coal,	2	13
By fall of shale,	2	
By fall of roof coal,	1	2
By fall of horse-back,	1	
By fall of roof,	1	
By cars,	3	10
By a blast,	1	1
By a post,	1	
By fall of coal and slate,		3
By fall of coal and roof coal,		1
Caught between car and coal pillar,		2
Caught between trucks,		2
By fire damp,		5
Miscellaneous,		1
Total,	25	66

MINES ON THE MONONGAHELA RIVER.

Apollo.—The general condition of this mine, on my last visit, was fair. Mine foreman, Samuel Smith.

Fayette City.—On the date of my last examination of this mine, the ventilation was reasonably good, but the drainage required improvement. John Dailey, mine foreman; James Jenkins, fire boss.

Little Redstone.—Among other improvements made at this mine during the year, was the installation of a complete electric mining plant. Taking it as a whole, the mine was in fair condition. Mine foreman, Frederick Dreyer; fire boss, John Lavery.

Chamouni.—Mine was idle on my last visit. I made an examination of the inside workings and found them in fair condition. W. S. Gibson, mine foreman; William True, fire boss.

Allequippa.—General condition of mine, on last examination, satisfactory. Mine foreman, Thomas Howell.

Crescent.—Mine was not in operation when last visited. A number of persons were engaged in and about the mine on repairs and general improvements. I am informed that the total cost of the above was in the neighborhood of three thousand dollars. Elijah Dainty, mine foreman; William Dainty, fire boss.

Cincinnati.—At the time of the last examination of this mine, I found the general condition of the ventilation and drainage, fair. I am pleased to state, in this report, that the slope, of which mention was made in my reports for the years 1893 and 1894 has been completed. Improvements at this mine during the year consist of a mechanical haulage of the tail-rope system. Mine foreman, Thomas Smith; fire boss, William Todd.

Fox.—At the date of my last visit to this mine, I found it in fair condition.

Rostraver.—The ventilation, in parts of this mine, was not up to the requirements. I suggested that the law be complied with so as to remove cause of complaint. I have since been informed that the air currents have been materially improved and that they were still at work improving them. James Craig, mine foreman.

Knob.—In operation sixty-eight days during the year. Number of persons employed inside, 219; outside, 13. Condition of mine, satisfactory. Mine foreman, John D. Bakewell; fire boss, Joshua Fenwick.

Stonesburg.—On one of my visits to this mine, I found the ventilation in the greater part unsatisfactory. In one entry known as No. 9, eighteen persons were at work in an atmosphere that was at a standstill, and so charged with black-damp as to be very unhealthy. Among other places being worked on the above entry was room No. 16. This room was being driven with all possible dispatch for the purpose of connecting it with the workings of the adjoining (Amity) mine. The object being to get ventilation from the latter. After taking the condition of the entry into consideration, as regards ventilation, I suggested to the mine foreman and incidentally to the persons at work on the entry, that all work (except room 16) be suspended until the entry was ventilated, either from the Amity mine

or some other source. After making a general examination of the mine, I called the attention of the superintendent to the suggestions made, which on hearing, he showed considerable feeling and answered, "if part of the workings shall be stopped, I will stop the other part and hold you (meaning the writer) responsible." I then politely told him that he could use his own pleasure about that. The mine closed down shortly after this, and has not been operated since.* S. D. Aultman, mine foreman.

Beaver.—Situated about one mile northeast of the borough of California. This is a new opening and only at intervals employs a sufficient number of persons to come under the jurisdiction of this office.

Snow Hill.—General condition of mine, when last examined, fair. Mine foreman, John McVicker.

Bunola.—On the last examination of this mine, it was, as regards ventilation, unsatisfactory. William Penn, mine foreman.

Amity.—Idle when I made my last visit. Mine foreman, Jacob Heasley.

Buffalo.—This mine was idle during the entire year.

Black Diamond.—In operation seventy-eight days during the year. Total number of persons employed inside, 235; outside, 22. Mine was idle when I made my last visit. Malcolm Cochran, mine foreman; Jonathan Cothrie, fire boss.

Abe Hays.—Idle the entire year.

Cliff.—When the last examination of this mine was made, it was, as far as the ventilation was concerned, in fair condition. Mine foreman, Maurice Beedle; fire boss, W. E. French.

Champion and Caledonia.—Neither of these mines were in operation when last visit was made. Mine foremen, Thomas Gainor and John A. Carroll.

Washington.—At the time of my last examination of this mine, I found the greater part very poorly ventilated. This condition of affairs, was due entirely to not having the stoppings in proper order. The greater part of the air escaped into the "return" before reaching the working faces.

Among the improvements at this mine during the year, was the erection of two ventilating fans 8 feet in diameter, and as they have the capacity to furnish all the air required for the mine for some time to come, there should be no cause for complaint, regarding ventilation. W. H. Ambler, mine foreman; fire boss, Thomas Mathews.

Ella.—General condition of mine when last examined, fair. Mine foreman, Frank Rensick; fire boss, William Eicher.

Watson.—General condition of mine when last examined, satisfactory. W. J. Mollison, mine foreman; William Spence, fire boss.

*Close of the year 1895.

Coal Bluff.—On examination, I found the general condition of this mine, fair. Mine foreman, Joseph W. Huet; fire boss, Thomas Mitchell.

Ivill.—Mine was in fair condition when last visit was made. W. F. Holsing, mine foreman; Henry Young, fire boss.

Banner.—This mine was found in good condition, as regards ventilation and drainage. Mine foreman, Joseph Penman; fire boss, Benjamin Marsden.

Anchor.—General condition of mine when last examined, satisfactory. John Fallow, mine foreman.

Tremont.—In operation ninety days during the year. Number of persons employed inside: 10 machine men, 50 fillers, 4 drivers, 3 day men and 1 trapper. The condition of the mine, as regards ventilation and drainage, was unfavorable in some parts. Mine foreman, William Watkins; fire boss, William Bunny.

Fawcett.—After an idleness of almost five years, operations have been resumed at this mine. A co-operative company has leased the plant, under the title of "The Equitable Coal Company, Limited," who have put the mine in very fair condition, and made some extensive outside improvements, consisting of a new railroad tipple with the necessary sidings. They have raised the river tipple some ten feet, and also built some 300 feet of new trestle work. The whole cost of improvements and repairs, being about $8,200. Joseph W. Blower, superintendent and mine foreman.

Camden.—On date of my last examination the mine was in fair condition. Mine foreman, Henry G. Heath.

Mongah.—On each examination of this mine, I found the ventilation in parts unsatisfactory. The present ventilation (a furnace) is not of sufficient power to produce the quantity of air required. The general condition of the mine is more suitable for a fan as a ventilator, than a furnace. I have called the attention of the management, to the condition of the mine, and each time, some improvements have been made. Joseph L. Watson, mine foreman; George Mountain, fire boss.

Fulton.—This mine was not operated during the year.

Rock Run.—General condition of mine, satisfactory. James Henderson, mine foreman.

Vigilant.—When last examined, they were employing, inside 215 persons. The inlet air measurements showed 33,600 cubic feet entering the mine. The air was fairly distributed around the working faces, with the exception of entries 8 and 15, as the air on those places required an increased quantity to comply with the law. I suggested that this cause of complaint be removed, and have since been informed that my instructions have been complied with. Mine foreman, R. C. Campbell; fire boss, Joseph Edwards.

Stony Hill.—In operation 100 days during the year. On my last visit, the ventilation, in parts of the mine, required improvement. Richard Stevenson, mine foreman.

Climax.—At the time of my last visit to this mine, the ventilation and drainage was, in parts very unsatisfactory. Mine foreman, John Owens; fire boss, Thomas Fox.

Eclipse.—Mine was not in operation when last visit was made. Work was in progress preparatory to installing an electric mining plant. Mine foreman, William Minford; fire boss, Hugh Cairns.

Milesville.—Number of persons employed in and about the mines, 119. Number of days worked during the year, 155. The mine was idle when last visit was made. I made no examination of the interior. Alexander Thomas, mine foreman and fire boss.

Stockdale.—In fair condition when last examined. Mine foreman, John Crombie.

Walton's Upper Mine.—In operation 159 days during the year. Number of persons employed inside, on my last visit, 186. Condition of mine was fair. A mechanical haulage has been put in this mine during the year. D. W. Phillips, mine foreman.

Vesta No. 1.—On my last examination, I found the general condition of the mine, fair. Mine foreman, Foster G. Watson; fire boss, Edward Wilkins.

On September 13th an explosion of fire damp occurred in this mine, which resulted in the serious injury of Valentine Bennett, a driver, and William McKnight, a boy, aged 17 years. On subsequent investigation of this accident, I found that McKnight worked with his father in room 23, entry 9. This room was being driven toward the abandoned workings of entry No. 7, and as it was giving evidence of "holing" the elder McKnight sent for the mine foreman, to examine the place. In the meantime, however, they "holed." The mine foreman, upon his arrival, satisfied himself that there was no danger and told the McKnights they might load out their "ready" coal, as the place was all right. He then left for the purpose of going to the mouth of the room, but he only got half way down, when the gas fired on young McKnight who was loading a car opposite the hole above mentioned. The ignited gas not only forced itself through this hole, but also over the fall of the abandoned room on entry 7, and down this entry quite a distance, injuring Bennett who was by this time, on the entry with a trip of loaded cars from entry 9. I questioned the mine foreman in regard to the firing of the gas, so quickly after he had informed the McKnights' that "it was all right" and he gave it as his opinion, that the gas had been lying high upon the fall, and when the dilly-trip was on its way into the mine, a current of air was forced over the fall taking the gas with it and upon reaching the hole made by the McKnights it fired. This explanation is worthy

of some consideration, but to take all the circumstances connected with it into consideration, I am of the opinion that the examination made by the mine foreman was somewhat limited in extent, and also that it was not done with the care demanded.

Walton's Lower Mine.—On my last examination of this mine, I found that the ventilation, in some parts required attention. Number of persons employed inside, 177. Cubic feet of air at outlet, 25,200. William Murray, mine foreman.

Umpire.—Mine idle on my last visit. A few persons were at work inside making repairs. Mine foreman, Aquilla Underwood; fire boss, John Armstrong.

Cedar Hill.—The coal, at this mine, is nearly exhausted. The bituminous mining act, does not, at present, apply to it.

Albany.—Not in operation when last visit was made. George Gibson, mine foreman; John Gelder, fire boss.

Old Eagle.—General condition of mine, when last examined, fair. James Black, mine foreman; John Black and Daniel McFaulds, fire bosses.

Little Alps.—In operation 54 days during the year. Total number of persons employed inside and outside, 53. On my last visit the ventilation required improvement, but the drainage was satisfactory. Mine foreman, John Underwood.

Beaumont.—When last examined, the mine was, in general, in a satisfactory condition. John Stathem, mine foreman.

New Eagle.—This mine was formerly operated by Mark Delaney, but since September 1st it has been operated by the New Eagle Coal Company. The mine consists of six butt and two face headings. The entries are driven 8 feet wide—the parallel butts being forty-eight feet apart with blocks of four hundred and eighty feet. The rooms are turned off the butt headings every thirty-three feet. These rooms are driven in twenty feet, at a width of seven feet, they are then widened out to 27 feet. At this width they are advanced to the middle of the block and abandoned. On my last visit to the mine, I found the ventilation fair, but the drainage required improvement. Mine foreman, Henry E. Wilson.

Blyth.—General condition of mine, on my last examination, fair. Peter Crockett, mine foreman and fire boss.

Hilldale.—General condition of mine, fair. Mine foreman, George Hays.

Crowthers.—When last examined they were not employing a sufficient number of persons to come under the jurisdiction of this office.

Jefferson.—In operation 56 days during the year. Number of persons employed in and about the mine, 181. Among other improvements made at the mine during the year, was the erection of a new

incline. They have also extended the Mechanical haulage. Mine not in operation on date of last visit. Andrew Frazer, mine foreman.

Vesta No. 2.—After working a short time in the early part of the year, all work (except that which was necessary to be performed) was suspended, but after an idleness of a few weeks work was resumed, and the production of the mine was conveyed through Vesta No. 1. When last examined, the mine was in fair condition.

Vesta No. 3.—Mine idle the entire year.

Clipper.—In fair condition when last examined. Mine foreman, Henry Wild; fire boss, Thomas Wielding.

Coal Centre.—Total number of persons employed in and about the mine, 200. Among other improvements made at the mine, during the year, was the installation of a ventilating fan 16 feet in diameter. The mine was in a satisfactory condition, when I made my last visit. Samuel Kent, mine foreman.

Catsburg.—In operation 290 days during the year. This mine gives employment to 300 miners, 11 drivers and 36 other persons. Was in fair condition when last examined. Alexander McCanch, mine foreman; William Ivill, fire boss.

Mines Located on the Monongahela Division of the Pennsylvania Railroad.

Allen.—The condition of this mine on my last examination, as regards ventilation and drainage, was fair. Mine foreman, William Crockett; fire boss, Archibald Furguson.

On October 7, an explosion which injured three persons, occurred in this mine. Two of them were seriously injured. Samuel Wick and his sons, George and John W., worked in room 38, entry 6, and a short time previous to the firing of the gas, noticed that the room was giving signs of "falling in." The elder Wick sent his son George for the mine foreman, to inform him of the condition of the room. Wick and his son John then left the room and sat down on the entry, directly opposite the mouth of their room. They had hardly got in this position, when the room caved in, this was followed immediately by an explosion, which resulted in the injury of Samuel Wick, Sr., John W. Wick and John Ouchrine. Ouchrine being in the act of filling his lamp at the mouth of his room some 40 feet away. Upon the arrival of the mine foreman, an examination was made, but no trace of fire-damp could be found. As no fire-damp had ever been found in this mine, numerous theories have been advanced as to what caused the explosion. Those who saw the flame informed the writer that it did not have the appearance of ignited fire-damp, but more like that of coal dust. I carefully investigated this accident and am of the

opinion that both of these elements played a part. Two falls took place in the room in quick succession and I take it that the first fall liberated a small quantity of fire-damp and at the same time raised the dust from the floor, sides, etc., and held it in suspension, and before it could be carried away by the air current or rendered harmless by being diluted, it was forced out on the naked lights of the Wicks, by the second fall. As there had been no fire boss at this mine up to and including the day of the explosion, I suggested that one be employed and the mine be examined in accordance with the law, and this suggestion has been complied with.

Acme.—When last examined the mine was in fair condition. John Arkwright, mine foreman.

Charleroi.—On my last visit to this mine, I found the drainage fair, but the ventilation required improvement, in parts of the mine I requested that the ventilation be attended to so as to comply with the act relating to bituminous coal mines. I have since been informed that my suggestions have been complied with. Mine foreman, Hugh Craig.

Fidelity.—In fair condition, when examined last. Henry E. Kinlock, mine foreman.

Courtney.—In operation 225 days during the year. Number of persons employed inside, eighty-five; outside, six. On my last examination the drainage was fair but the ventilation required attention. Mine foreman, Thos. A. Watson; fire boss, Andrew Jenkins.

Mines Located on the Pittsburgh and Belle Vernon Division of the Pittsburgh and Lake Erie Railroad.

Manown.—In operation 175 days during the year. Entries being driven at the time of my last visit 14. Cubic feet of air at inlet, 33,000. Ventilation and drainage fair. William Gibson, mine foreman; Earnest Meyer, fire boss.

North Webster.—Number of persons employed in and about the mine, 90. An electric mining plant of two machines was installed at this mine during the year. Condition of mine, satisfactory. Luke Creevey, mine foreman; William Creevey, fire boss.

Shepplar.—Numerous visits were made to this mine during the latter part of the year, owing to a Natural Gas Company having drilled a hole through part of the workings. This hole passes through the pillar between rooms 16 and 17 on entry No. 6. A survey was made to locate the hole which showed that there was only three feet of solid coal between it and the excavated parts of room 16. At my suggestion, stone walls are being built next to and parallel with the coal pillar between rooms 16 and 17, and cribbing is also being put in the same workings. I further suggested that as an addi-

tional safeguard, the ribs of rooms 16 and 18 be allowed to remain in, so as to prevent, as far as possible, the breaking of the strata. Mine foreman, John P. N. Coulter; fire boss, Ewing B. Neil.

Arnold.—Is a new drift opening, situated near Fayette City. When visited, they were driving entries, building a steel tipple, etc. The intention is to make this plant an electric one, with a capacity, I am informed, of three thousand tons per day.

Cleveland.—When last examined there were employed inside, eight machine men, eighty-two fillers, four pick men, seven drivers and seven other persons. Condition of mine, fair. Mine foreman, Nicholas Cole.

Mines on the Pittsburgh and Wheeling Division of the Baltimore and Ohio Railroad.

Anderson.—General condition of ventilation, fair; drainage however required improvement. Robert Howey, mine foreman.

Eclipse.—The tail rope system of haulage has been introduced into this mine during the year. On my last visit to the mine the ventilation and drainage required improvement. I suggested that the legal quantity of air be furnished and the drainage be given attention, which suggestions, I am informed, have been complied with. Mine foreman, Richard Jones.

Snowden.—General condition, when last examined, satisfactory. Mine foreman, James Porter.

Gastonville Nos. 1 and 2.—When examined, the general condition of the former was fair and that of the latter satisfactory. Mine foremen, William Beame and John J. Johnson.

Germania.—On my last visit to this mine, there were 123 persons employed inside. Entries being driven, 7. The outlet air measurement was, as shown by the instrument, 36,000 cubic feet. The condition of the mine as regards ventilation was unsatisfactory in some parts owing to the bad condition of the stoppings, etc. I suggested that the mine be put in the condition required by law. Mine foreman, John Bonner.

Hackett.—On my last examination of this mine, I found the ventilation in the greater part very unsatisfactory. This was the fault of those having charge of the mine, as the furnace was furnishing a sufficient quantity of air to keep it in a healthful condition, if it was properly distributed. John Watson, mine foreman.

Nottingham.—In operation 180 days during the year. Number of persons employed inside, 169; outside, 8. Ventilation and drainage required improvement, at the time of last visit. Mine foreman, James Kerr.

Dunlap Creek Mine.—When last visit was made, this mine was not

employing a sufficient number of persons to come under the requirements of the law.

Greene County Mines.—When visited, none of these mines employed more than nine persons, and consequently did not come under the jurisdiction of this office.

Fatal Accidents.

Stephen Rankowski, Polander, a miner, aged 25 years, was instantly killed by a fall of slate, January 4, in Charleroi mine. Deceased left a wife and one child.

Philip Doyle, Irish, miner, aged 33 years, was fatally injured, February 11, in Hackett mine, by a fall of roof coal and died eight days after being injured. He left a wife and one child.

Alonzo Hindman, American, driver, 36 years of age, was, on March 25, so seriously injured by the cars, that he lived but a short time after the accident. It appears, from the investigation made, that a few days previous to the accident, the unfortunate man had been promised work, and to familiarize himself with the work to be performed by him, he accompanied and assisted one (Henry Gibson) of the old drivers, for a day. In this he was given the privilege of gathering from the rooms and entries, and moving the trips to the double-parting. The cars, at a certain part of the entry, were required to be spragged so as to control them. This work the deceased was also permitted to do, and it was in evidence that he performed it in a very satisfactory manner and so being satisfied that he understood the work and was fully able to perform it, a mule was given into his charge, but unfortunately while making his first trip, unaided, he met with the accident which resulted as above.

The entry on which this accident occurred is known as No. 37. This entry enters No. 36 by a "cross-over." In this "cross-over" stands a door which is attended by a trapper. The designated spragging point on the former entry is between rooms 8 and 9, and the place of removal, between rooms 1 and 2. At the latter place the driver is supposed to stop his trip, remove his sprags, and wait until the trapper signals that the track is "clear." For some cause, the deceased failed to stop, but it is supposed that he attempted to remove the sprags from the wheels at the proper place, and failing he jumped on the hitching of his trip, and when passing around the curve of the "cross-over," the side of the cars caught him. One child is left to mourn the loss of a father.

John Balla, Slavish, a miner, aged 18 years, was instantly killed in Chamouni mine, March 25, by a fall of slate. The deceased and Jno. Balla, Sr., worked together, and at the time of the accident, were taking down slate. The greater part of the slate had been removed,

but two pieces yet remained. One measured (after the fall) 2 feet 6 inches x 3 feet 6 inches x10 inches, and the other piece 2 feet x 3 feet x 10 inches. Under this slate, a post was set, which the deceased knocked out. The father told the writer that he had warned the deceased not to remove the post, until a car, which they had standing in the room, was taken out, and that if he attempted to remove the post he would be killed, and the unfortunate boy answered, "I do not care."

Robert Dewire, English, miner, aged 27 years, was instantly killed by a fall of coal in Beaumont mine, April 10. He was a single man.

Robert Walton, English, a miner, was instantly killed and John, his son, slightly injured, by a fall of slate, in Fayette City mine.

It appeared that the deceased and two sons, John and Robert, Jr., worked together in a 12-foot place off entry 19, and at the time of the accident, the deceased and John were filling a car, and Robert Jr., was placing the lumps, when a piece of slate which measured 6 feet long, 4 feet 6 inches wide and about 10 inches thick, fell, striking the unfortunate man, with the result as above stated. Subsequent investigation and examination of the place where the accident occurred showed that a "tight" shot had been fired and several cars had been filled out from it. This exposed a large piece of slate, and immediately before the slate fell, they fired a butt shot, which exposed a larger quantity of slate, which consequently increased the danger. From the testimony of Robert, Jr., and John before the coroner's jury, it appeared that no examination of the slate had been made, after firing the shot. Walton left a wife and four children.

John Poston Schandor, a Hungarian miner, 38 years of age, was instantly killed, by a blast from the next room, in Bunola mine, April 16. Schandor was at work in room 5, main entry, in room 6 adjacent, William Foster was at work. On the morning of the above date, the latter prepared a blast in a butt, this butt being on side next to room 5. Previous to the lighting of the squib, Foster, says that he "sounded" on the rib to give Schandor warning that he, Foster, was about to fire. On the firing of the blast, Foster made an examination of his room, and finding no coal down, he started into Shandors' room and upon reaching the face, he discovered the mangled body of Schandor, the blast having blown through the rib.

Upon examining the place where the accident occurred, I found that Foster had a butt shot made in his room, some 8 feet long and 4 feet deep, and in drilling the hole for a blast, he unfortunately allowed the direction to be toward the rib.

After the blast was fired, it was found that the hole was into the rib some 10 inches. About 12 bushels of coal were blown out of the

rib, part of which struck Schandor, resulting as above. Deceased left a wife and two children. An inquest was held and a verdict of accidental death rendered.

Antonio Kravo, Italian, miner, aged 46 years, was fatally injured by a fall of shale, in Cleveland mine, May 2, and died some eight hours after being injured.

The deceased and his brother Frank were engaged filling a car in room 40, entry 10, at the time of the accident. Upon examining the room I found that a piece of shale in the form of what is known among miners as a "pot hole" had fallen out upon the deceased. This measured, upon the upper part, about 2 inches while the lower part was 36 inches, the height being 12 inches. To the latter, a piece of black-jack 3 feet wide and 5 feet long was attached, which made the whole mass very heavy. This accident caused considerable feeling, owing to the brother Frank having made the charge that there were no posts in the room, when Antonio received his injuries. This charge was not sustained by the testimony of witnesses at the inquest, or at the investigation held by the writer, as the witnesses all gave evidence to the contrary. This charge was made by the brother while they were taking the body of Antonio out of the mine, and no doubt, he (Frank) was laboring under great excitement. In examining the place, I found plenty of posts and caps in the place. My own opinion of this accident is that it was unavoidable.

William Ferguson, Scotch, miner, aged 41 years, was fatally injured in Little Alps mine, by being struck by a post, on June 6.

The deceased and his two sons, aged 14 and 16, respectively, were working together, and having quite a large quantity of slate on, concluded to take some of it down. The deceased had taken some posts from under the slate, and while in the act of taking another post out, it was dislodged by a piece of slate falling against it. This post struck the unfortunate man on the left side of the head, injuring him in such a manner, that death resulted in about three hours later. Ferguson left a wife and seven children.

Joseph Novack, Slavish, a filler, was instantly killed by a fall of slate, in Manown mine on June 8. The deceased and another filler, named Michael Mimmere were partners, their work being to load after the mining machines, and at the time of the accident they had all the loose coal filled up, with the exception of about one-half of a car. A large quantity of slate was up, and under this the deceased went to knock off a slip of coal to make out the car, and while doing so, the slate fell with the result as above stated. This accident was due entirely to the oversight of Novack, as Hammere, in the morning, suggested that they had better remove the slate, which suggestions he repeated but a short time previous to the accident, but the deceased answered, "it is all right." Novack was 27 years of age and single.

Asa Dickson, miner, American, aged 43 years, was fatally injured by a fall of "horse-back," in Germania mine, June 13, dying some six hours after being injured. He left a wife but no children.

Matthew Edmundson, English, miner, aged 45 years, was instantly killed by a fall of slate, in Ella mine on June 25. Some five cars had been filled out of a cut of coal some thirty-nine feet long and five feet eight inches deep. The deceased was loading a car from the left side of the room and at the time of the accident, had it about two-thirds full. The piece of slate which fell on the unfortunate man, measured eight feet long four feet wide and ten inches thick. Edmundson left a wife.

Battilli Giuninia, Italian, miner, was instantly killed by a fall of slate in Charleroi mine, July 13, while removing posts. The deceased left a wife and nine children.

Benni Lepoulda, Italian, miner, aged 39 years and single, was instantly killed in Blythe mine by a fall of shale. The deceased was driving entry 11, and on the day of the accident had finished his day's work and started for home and upon reaching a point between rooms 3 and 4, Lepoulda came across a full car which had been left standing in the entry by a driver, until he pulled a car from room 3. At this car the deceased stopped and proceeded to prepare a place to put his dinner bucket, and while doing this, a piece of shale, with a surface of 25 square feet and some 20 inches thick fell, striking him, with the result as above stated. At the time of the accident, another miner named Moses Rodace, was making a place on the same car for his dinner bucket and his evidence before the writer and also the coroner, showed that he had intended to ride out of the mine on the trip, and it is supposed that it was the intention of the deceased to do the same. It is a violation of the act relating to bituminous coal mines to ride on full cars and in recording this accident, I cannot help but say that Lepoulda lost his life, while preparing to do that which the law prohibits, for if he had passed on instead of stopping at the car referred to, there would have been no reason to report this fatality. According to the testimony given before the coroner's jury the place had been frequently examined, but no danger was anticipated from its falling.

John McIntire, Scotch, mining machine operator, aged 25 years, was fatally injured, in Shepplar mine, August 17, by being caught between the cars and coal pillar. Lived some seven hours after the accident. He left a wife and one child.

Joseph Shovel, miner, aged 35 years, was instantly killed in Blythe mine by a fall of shale on September 21.

Deceased and Frank Casteel worked together in room 42, entry 8, and at the time of the accident, were loading a car. Four pieces of

shale, nearly equal in size, fell. The one that was found on the deceased, measured four feet long, two feet wide and four inches thick. Upon examining the place where this accident occurred, I found a slip running parallel with the road, and at right angles to this was another one, which made this part of the room very dangerous. I was informed by Casteel that they had examined the shale but a short time before it fell, and considered it safe. Shovel left a wife and two children.

Sloan Trump, American, a miner, was instantly killed at Anchor mines by a fall of slate while working in room 6, entry 4.

On the morning of the accident, the deceased and Roland Hall, his partner, fired two blasts, one in the half shearing and the other in the butt. Four cars had been loaded out of the former blast and as some of the coal was still up, they concluded to knock it down with a pick. This work the deceased was performing when the slate fell, resulting as above stated. The slate which fell, measured 11 feet long, 6 feet wide and about 11 inches thick. An examination of the place where the accident occurred, showed the slate full of slips and breakers, consequently it required the utmost care on the part of those at work, but it seemed there was a lack of this, as Hall informed the writer that no examination of the slate was made by him after the firing of either shot, and he could not say whether or not deceased made an examination. Trump was 22 years of age and single.

Noah Armstrong, English, a miner, aged 38 years and single, was instantly killed in Anderson mine, October 4, by a fall of coal while "bearing in."

O. S. Ferree, American, miner, aged 48 years, was instantly killed in Allen mine, November 1, by a fall of roof coal. Upon investigating this accident, I found that the deceased and L. B. Painter had been engaged in withdrawing posts out of a worked out and abandoned room known as No. 30, on entry No. 6. In taking out the posts a large area was unsupported, and when about 21 feet from the neck of the room, a fall which measured thirty feet long, twenty-two feet wide and three feet thick occurred, part of which struck the deceased, resulting as stated above. At the same time, part of the fall struck Painter, slightly injuring him. Considerable feeling was shown by some persons in regard to this accident, owing to the rumor that Ferree was not a practical miner and should not have been put at that kind of work. It was in evidence before the coroner's jury that the deceased had worked in and about the mines of this district for some thirty years and that previous to starting to draw the posts out of room 30, they (deceased and Painter) had removed the posts from three rooms, also a few out of others. Ferree left a wife and four children.

John Plantridge, German, miner, was fatally injured in Washington mine, November 14, by being caught between car and coal pillar. Plantridge was a single man, aged 30 years.

Pietro Batichio, Italian, a miner, aged 35 years, was fatally injured by a fall of slate in Ivill mine, December 5. Deceased and Giovanni Torretti worked together in room 25, entry 37, and at the time of the accident the latter was "bearing in" while the former was loading coal out of the tight side of room. While engaged in this work, a piece of slate six feet long, five feet wide and ten inches thick, fell striking Batichio with above stated result. Deceased left a wife and three children.

Luigi Perretti, Italian, miner, December 5, received injuries by a fall of slate in Blythe mine which caused his death March 2, 1896.

TABLE 1.—*Showing location, etc., of collieries in the First Bituminous Mine District.*

Name of Colliery.	Name of Operator.	Location--County.	Name of Superintendent.	Post Office Address.
Arnold,	Johnson Coal Mining Company,	Fayette,	J. H. Moorefield,	Fayette City.
Apollo,	C. Jutte & Co.,	Fayette,	Thomas Watkins,	Fayette City.
Albany,	Snowdon, Gould & Co.,	Fayette,	William Seddon,	Brownsville.
Anchor,	A. & J. Leonard,	Fayette,	J. E. Leonard,	Roscoe.
Acme,	Stockdale Coal Co,	Washington,	C. H. Braznell,	Monarch.
Allen.	Allen Coal Company,	Washington,	C. H. Braznell,	Monarch.
Anderson,	Hon. D. M. Anderson,	Washington,	F. E. Robb,	Venitia.
Abe Hays,	W. S. B. Hays,	Washington,	T. S. Hutchinson,	Monongahela.
Allequippa,	Bailey, Wilson & Co.,	Allegheny,	W. W. Wilson,	Camden.
Amity,	S. S. Crump,	Allegheny,	S. S. Crump,	Bravosburg.
Bunola,	O'Neil & Peterson,	Allegheny,	George W. Peterson,	Bunola.
Banner,	J. M. Risher Coal Company,	Washington,	Robert P. Risher,	Shire Oaks.
Blythe,	Blythe Coal Company,	Washington,	Thomas Cowell,	Speers.
Black Diamond,	W. H. Brown Sons,	Washington,	James Louttit,	Monongahela.
Beaumont,	Beaumont Coal Company,	Washington,	A. G. Leonard,	West Brownsville.
Buffalo,	Corey Gas Coal Company,	Washington,	Henry Bonyer,	Courtney.
Cincinnati,	C. Jutte & Co.,	Washington,	William Davis,	Monongahela.
Cliff,	J. M. Risher Coal Co.,	Washington,	Robert P. Risher,	Shire Oaks.
Coal Bluff,	J. M. Risher Coal Co.,	Washington,	Robert P. Risher,	Shire Oaks.
Catsburg,	Catsburg Coal Company, Lim.,	Washington,	John H. Jones,	Monongahela.
Coal Centre,	P. J. Forsythe & Co.,	Washington,	P. J. Forsythe,	Coal Centre.
Clipper,	Clipper Coal Co.,	Washington,	Robert Jock,	Allenport.
Courtney,	Mingo Gas Coal Company,	Washington,	Thomas A. Watson,	Courtney.
Caledonia,	T. F. Wood,	Washington,	Allen Bradshaw,	Woods Run.
Champion,	T. F. Wood,	Washington,	Allen Bradshaw,	Woods Run.
Charleroi,	Charleroi Coal Company,	Washington,	Jesse K. Johnson,	Charleroi.
Crescent,	California Coal Company,	Washington,	Robert J. Gregg,	California.
Camden,	George Lysle Sons,	Allegheny,	B. M. Thomas,	Camden.
Climax,	Pittsburg and Belle Vernon Coal Co.,	Fayette,	John Owens,	Brownsville.
Chamouni,	Tide Coal Company,	Fayette,	William Fishburn,	Brownsville.
Crowthers,	Jonas Crowthers,	Fayette,	S. T. Crowthers,	Fredericktown.
Cedar Hill,	Bertina Bassetti,	Fayette,	Bertina Besseti,	California.
Cleveland,	J. H. Somers Fuel Company,	Fayette,	W. P. Bates,	Belle Vernon.
Dunlap,	Dunlap Coal Company,	Fayette,	Moses Ramage,	Brownsville.
Eclipse River,	Eclipse Coal Company,	Washington,	D. B. Blackburn,	No. 8 Wood street.
Eclipse Railroad,	Osborne, Seager & Co.,	Washington,	B. F. McConaghy,	Venitia.
Ella.	Ella Coal Company,	Westmoreland,	A. E. Speakman,	Sunny Side.
Fayette City,	Samuel O'Neill, Attorney,	Fayette,	James O'Neil,	Fayette City.
Fulton,	George Doyle,	Allegheny,	W. V. Mickey,	Jones Station.
Fox.	Fox Coal Company,	Washington,	Goodloe Michener,	Millsboro.
Fidelity.	Fidelity Coal Company,	Washington,	Henry E. Kinlock,	Roscoe.
Germania.	Henry Florsheim,	Washington,	Sigismund Florsheim,	Finleyville.
Gastonville Nos. 1 and 2.	Pittsburg and Chicago Gas Coal Co.	Washington,	James B. Van Eman,	Gastonville.

TABLE NO. 1.—*Continued.*

Name of Colliery.	Name of Operator.	Location--County.	Name of Superintendent.	Post Office Address.
Hackett,	Boyle Bros. Coal Company,	Washington,	J. E. Boyle,	Hackett.
Hilldale,	Hillsdale Coal Company,	Washington,	Evan Beedle,	Jones Station.
Ivill,	James Jones,	Washington,	T. P. Jones,	Monongahela.
Jefferson,	Thomas Foster & Sons,	Allegheny,	D. B. Foster,	Coal Valley.
Knob,	Knob Coal Company,	Washington,	S. H. Pearsaul,	West Brownsville.
Little Alps,	Alps Coal Company,	Fayette,	Joseph Underwood,	Roscoe.
Little Redstone,	Little Redstone Coal Company,	Fayette,	J. T. Jones,	Gillespie.
Millesville,	Robert Jenkins,	Allegheny,	Robert Jenkins,	Sunny Side.
Manown,	Youghiogheny Gas Coal Company,	Allegheny,	Lute Houmle,	Manown.
Monagh,	W. H. Brown's Sons,	Allegheny,	James Louttit,	Monongahela.
North Webster,	Webster Gas Coal Company,	Westmoreland,	R. B. Large,	Belle Vernon.
Nottingham,	Henry Florsheim,	Washington,	Sigismund Florsheim,	Finleyville.
New Eagle,	New Eagle Coal Company,	Washington,	G. W. Roberti,	New Eagle.
Old Eagle,	W. H. Brown's Sons,	Allegheny,	James Louttit,	Monongahela.
Rostraver,	Rostraver Coal Company,	Westmoreland,	D. G. Jones,	Lock No. 4.
Rock Run,	Sarah C. Snodgrass,	Allegheny,	John B. Snodgrass,	Camden.
Snowdon,	Pittsburgh and Chicago Gas Coal Co.,	Allegheny,	James H. Van Eman,	Gastonville.
Stonesburg,	Stonesburg Coal Company,	Allegheny,	J. W. Mathews,	Dravosburg.
Snow Hill,	Alps Coal Company,	Fayette,	Joseph Underwood,	Roscoe.
Stony Hill,	John H. Dixon,	Fayette,	John H. Dixon,	California.
Shepplar,	Shepplar Gas Coal Company,	Fayette,	William Young,	Belle Vernon.
Stockdale,	Fulton Coal Company,	Washington,	John Crombie,	Webster.
Tremont,	John A. Wood & Son,	Fayette,	S. B. Graham,	Belle Vernon.
Umpire,	C. L. Snowden & Co.,	Fayette,	J. D. Simpson,	Brownsville.
Vigilant,	California Coal Company,	Washington,	J. A. Powell,	California.
Vesta No. 1,	Vesta Coal Company,	Washington,	R. B. Drum,	California.
Vesta No. 2,	Vesta Coal Company,	Washington,	R. B. Drum,	California.
Vesta No. 3,	Vesta Coal Company,	Washington,	R. B. Drum,	California.
Walton, Upper,	Joseph Walton & Co.,	Allegheny,	John N. Rike,	West Elizabeth.
Walton, Lower,	Joseph Walton & Co.,	Allegheny,	John N. Rike,	West Elizabeth.
Watson,	Watson Mining and Manufacturing Co.,	Allegheny,	Chas. P. Rankin,	Monongahela.
Washington,	Briggs and Flint,	Fayette,	T. S. Briggs,	Monarch.

TABLE NO. 2.—*Gives the total number of tons of coal mined in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, etc., in the First Bituminous Mining District for the year ending December 31, 1895.*

Names of Collieries.	Location.	Total production in tons of coal.	Total shipments in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers	Number horses and mules.	Number mine locomotives.
Apollo,	Fayette county,	168,858	168,858	204	227	.....	6	.....	2	17	.....
Albany,	Fayette county,	52,058	52,058	78	155	.....	.....	98	3	10	.....
Anchor,	Fayette county	80,231	80,231	154	119	1	1	326	2	6	.....
Acme,	Washington county,	126,413	126,413	170	124	.....	2	600	.....	10	.....
Allen,	Washington county,	97,055	97,055	175	104	1	3	400	.....	9	.....
Anderson,	Washington county,	65,140	64,640	125	131	1	.....	.....	3	8	.....
Abe Hayes,	Washington county,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Allequippa,	Allegheny county,	75,746	75,746	125	214	.....	1	.....	3	18	.....
Amity,	Allegheny county,	62,326	64,826	85	234	.....	.....	71	.....	12	.....
Bunola,	Allegheny county,	52,324	52,324	129	133	1	.....	200	1	8	.....
Banner,	Washington county,	32,700	32,700	100	138	.....	3	.....	2	10	.....
Beaver,	Washington county,	1,976	1,976	60	11	.....	.....	24	.....	2	.....
Blyth,	Washington county,	169,081	169,081	221	187	3	5	825	.....	8	.....
Black Diamond,	Washington county,	44,045	44,045	78	227	.....	.....	200	1	12	.....
Beaumont,	Washington county,	79,340	79,340	174	124	1	1	435	2	8	.....
Buffalo,*	Washington county,	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Cincinnati,	Washington county,	46,006	46,006	100	200	.....	3	175	2	14	.....
Cliff,	Washington county,	56,400	56,300	120	170	.....	.....	.....	1	13	.....
Coal Bluff,	Washington county,	111,700	111,700	200	184	.....	4	.....	2	9	.....
Catsburg,	Washington county,	181,444	181,444	290	347	.....	5	400	6	11	.....
Clipper,	Washington county,	56,914	56,914	.....	103	.....	.....	300	.....	9	.....
Coal Centre,	Washington county,	70,148	70,088	99	200	.....	1	675	1	11	.....
Courtney,	Washington county,	43,583	43,583	225	91	.....	.....	.....	1	9	.....
Caledonia,	Washington county,	36,500	36,500	70	111	.....	.....	250	.....	12	.....
Champion,	Washington county,	40,000	40,000	70	190	.....	.....	200	1	10	.....
Charleroi,	Washington county,	116,145	116,145	217	146	2	.....	450	1	6	.....
Crescent,	Washington county,	108,400	108,000	213	210	.....	.....	1,800	1	9	.....
Camden,	Allegheny county,	105,000	105,000	140	224	.....	1	.....	5	17	.....

*Idle the entire year.

TABLE NO. 2.—*Continued.*

Names of Collieries	Location.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.
Climax	Fayette county	49,434	49,344	.....	131	.....	.....	310	3	8	.....
Chamouni	Fayette county	54,092	54,092	102	234	2	.....	300	1	10	.....
Crowthers	Fayette county	12,160	12,160	.....	30	.....	.....	.....	.....	2	.....
Cedar Hill	Fayette county	5,000	5,000	.....	9	.....	.....	.....	.....	1	.....
Cleveland	Fayette county	137,710	137,710	.....	197	1	6	900	2	16	.....
Dunlap	Fayette county	4,560	4,560	.....	16	.....	.....	100	1	1	.....
Eclipse (river)	Washington county	111,000	111,000	100	228	.....	1	.....	2	12	.....
Eclipse (railroad)	Washington county	89,582	89,582	174	173	.....	2	360	2	8	1
Ella	Westmoreland county	120,414	120,414	241	156	1	2	.....	2	8	.....
Fayette City	Fayette county	256,075	275,350	240	187	2	2	.....	4	17	.....
Fulton.*	Allegheny county	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fox	Washington county	13,161	13,161	.....	41	.....	.....	150	.....	2	.....
Fidelity	Washington county	43,374	43,374	172	64	.....	.....	.....	.....	5	.....
Faucett	Westmoreland county	13,871	13,871	35	89	.....	.....	25	1	9	.....
Germania	Washington county	67,213	67,213	261	192	1	.....	.....	1	7	.....
Gastonville	Washington county	164,029	164,029	242	260	.....	.....	.....	1	15	.....
Hackett	Washington county	63,878	63,678	196	169	1	1	70	.....	8	.....
Hilldale	Washington county	32,203	32,203	65	152	.....	2	.....	1	6	.....
Ivill	Washington county	76,236	76,236	182	180	2	1	200	3	7	.....
Jefferson	Allegheny county	31,922	31,922	56	179	.....	1	.....	3	8	.....
Knob	Washington county	33,093	33,093	68	232	.....	.....	125	2	12	.....
Little Alps	Fayette county	16,338	16,338	54	53	1	.....	50	.....	3	.....
Little Redstone	Fayette county	96,330	96,080	114	164	.....	1	.....	2	10	.....
Milesville	Allegheny county	61,473	61,000	155	119	.....	1	200	3	7	.....
Manown	Allegheny county	156,581	151,542	175	175	1	5	.....	6	11	.....
Mongah	Allegheny county	78,952	71,103	225	150	.....	2	260	3	9	.....
North Webster	Westmoreland county	32,472	31,772	76	90	.....	.....	150	2	7	.....
Nottingham	Washington county	74,400	74,400	189	177	.....	3	.....	.....	14	.....
New Eagle	Washington county	18,165	18,165	.....	81	.....	.....	.....	1	4	.....
Old Eagle	Allegheny county	39,180	39,180	.....	231	.....	.....	250	6	10	.....
Rock Run	Allegheny county	46,350	46,350	80	188	.....	.....	75	.....	11	.....
Rostraver	Westmoreland county	106,212	106,212	275	174	.....	3	340	1	6	.....
Snowdon	Allegheny county	116,901	116,901	234	235	.....	2	.....	4	11	.....

Stonesburg	Allegheny county	23,471	23,000	84	115		1						1
Snow Hill	Fayette county	51,460	51,460	104	173			12					
Stony Hill	Fayette county	48,200	48,200	109	131								
Sheppler	Fayette county	70,269	48,269	198	86		1						
Stockdale	Washington county	17,000	7,000		21								
Tremont	Fayette county	60,415	60,415	90	96								
Umpire	Fayette county	32,122	32,122	77	165								
Vigilant	Washington county	123,500	123,000	220	176								
Vesta No. 1	Washington county	385,436	385,436	212	224								
Vesta No. 2	Washington county	16,580	16,580	32	67								
Vesta No. 3	Washington county												
Walton, Upper mine	Allegheny county	207,696	207,696	159	426								
Walton, Lower mine	Allegheny county				1								
Watson	Allegheny county	70,000	70,000	127	118								
Washington	Fayette county	141,778	141,778	205	180								
Total		5,539,951	5,525,057	8,968	11,096	27	87	14,935	193	955			3

Estimated.

[1] Idle the entire year.

TABLE No. 3.—*Showing the number of each class of employes at each colliery in the First Bituminous Mine District during the year 1895.*

Names of Collieries.	Location.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.						
		Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	Grand totals—inside and outside.
Apollo,	Fayette county,	1	180	18	3	10	1	213	3	.....	.....	10	1	14	227
Albany,	Fayette county,	1	120	8	3	9	2	143	2	2	.....	7	1	12	155
Anchor,	Fayette county,	1	100	.....	2	5	1	109	1	1	.....	7	1	10	119
Acme,	Washington county,	1	103	2	1	7	.....	114	1	.....	.....	7	2	10	124
Allen,	Washington county,	1	84	2	1	8	.....	96	1	.....	.....	5	2	8	104
Anderson,	Washington county,	1	100	6	2	4	4	117	3	3	.....	6	2	14	131
Abe Hays,	Washington county,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1
Allequippa,	Allegheny county,	1	160	10	5	10	3	189	3	1	.....	20	1	25	214
Amity,	Allegheny county,	1	175	20	4	17	2	219	1	.....	.....	12	2	15	234
Bunola,	Allegheny county,	1	110	2	.....	7	1	121	1	1	.....	8	2	12	133
Banner,	Washington county,	1	120	4	5	8	3	141	2	2	.....	12	1	17	158
Beaver,	Washington county,	.....	8	.....	.....	1	.....	9	.....	.....	.....	1	1	2	11
Blythe,	Washington county,	1	160	4	1	8	2	176	2	.....	.....	7	2	11	187
Black Diamond,	Washington county,	1	185	.....	4	12	3	205	2	2	.....	16	2	22	227
Beaumont,	Washington county,	1	100	6	.....	4	2	113	1	2	.....	6	2	11	124
Buffalo,*	Washington county,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1
Cincinnati,	Washington county,	1	150	6	13	8	3	181	1	3	.....	13	2	19	200
Cliff,	Washington county,	1	140	4	3	11	2	161	2	.....	.....	7	.....	9	170
Coal Bluff,	Washington county,	1	150	.....	4	8	2	165	2	2	.....	13	2	19	184
Catsburg,	Washington county,	1	300	.....	6	11	4	322	4	4	.....	15	2	25	347
Coal Centre,	Washington county,	1	165	.....	2	10	4	182	2	2	.....	12	2	18	200
Clipper,	Washington county,	1	75	.....	.....	7	1	84	1	.....	.....	16	2	19	103
Courtney,	Washington county,	1	78	3	.....	3	.....	85	1	1	.....	3	1	6	91
Caledonia,	Washington county,	1	80	8	2	10	2	103	.....	1	.....	6	.....	.....	111
Champion,	Washington county,	1	150	15	3	8	2	179	1	1	.....	8	1	11	190
Charleroi,	Washington county,	1	130	.....	1	3	1	138	2	2	.....	2	2	8	146
Crescent,	Washington county,	1	185	.....	2	7	2	197	1	1	.....	8	2	13	210
Camden,	Allegheny county,	1	175	.....	4	15	3	198	1	2	.....	22	2	26	224
Climax,	Fayette county,	1	100	7	3	7	2	120	2	2	.....	5	2	11	131

Chamouni,	Fayette county,	1	200	.....	5	8	7	223	1	1	.....	5	1	13	234
Crowthers,	Fayette county,	1	20	2	1	2	.....	26	.....	.....	.....	2	2	4	30
Cedar Hill,	Fayette county,	.....	7	.....	.....	1	.....	8	.....	.....	.....	1	.....	1	9
Cleveland,	Fayette county,	1	140	10	11	12	4	178	4	4	.....	8	3	19	197
Dunlap,	Fayette county,	1	6	.....	.....	1	.....	8	.....	1	.....	.....	1	2	10
Eclipse Railroad,	Washington county,	1	140	6	3	5	4	159	2	5	.....	5	2	14	173
Eclipse River,	Washington county,	1	200	.....	3	10	4	218	1	2	.....	16	1	20	238
Ella,	Westmoreland county,	1	110	.....	13	9	2	135	3	4	.....	11	3	21	156
Fayette City,	Fayette county,	1	100	10	38	14	2	165	2	5	.....	14	1	22	187
Fulton,‖	Allegheny county,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fox,	Washington county,	1	35	.....	.....	1	.....	37	.....	.....	.....	2	2	4	41
Fidelity,	Washington county,	1	50	3	.....	5	.....	59	1	.....	.....	3	1	5	64
Faucett,	Westmoreland county,	1	70	2	.....	6	.....	79	1	1	.....	6	2	10	89
Gastonville, 1 and 2,	Washington county,	2	200	13	5	13	8	241	2	1	.....	13	3	19	260
Germania,	Washington county,	1	166	9	.....	7	.....	183	1	1	.....	5	2	9	192
Hackett,	Washington county,	1	150	.....	2	6	4	163	1	.....	.....	3	2	6	169
Hilldale,	Washington county,	1	125	.....	8	6	.....	140	2	2	.....	6	2	12	152
Ivill,	Washington county,	1	150	.....	3	7	3	164	1	1	.....	11	3	16	180
Jefferson,	Allegheny county,	1	150	6	1	5	2	165	1	2	.....	10	1	14	179
Knob,	Washington county,	1	200	2	2	12	2	219	1	2	.....	7	3	13	232
Little Alps,	Fayette county,	1	40	3	.....	2	.....	46	1	.....	.....	3	3	7	53
Little Redstone,	Fayette county,	1	131	5	3	7	1	148	2	1	.....	9	4	16	164
Milesville,	Allegheny county,	1	100	4	.....	6	.....	111	1	1	.....	4	2	8	119
Manown,	Allegheny county,	1	145	.....	3	9	3	161	1	3	.....	8	2	14	175
Mongah,	Allegheny county,	1	118	8	2	8	.....	137	1	2	.....	8	2	13	150
North Webster,	Westmoreland county,	1	65	.....	4	5	1	76	1	3	.....	8	2	14	90
New Eagle,	Washington county,	1	65	.....	.....	4	.....	70	1	1	.....	6	3	11	81
Nottingham,	Washington county,	1	145	11	1	11	.....	169	1	.....	.....	5	2	8	177
Old Eagle,	Allegheny county,	1	190	12	2	8	2	215	3	5	.....	7	1	16	231
Rock Run,	Allegheny county,	1	144	12	14	8	2	181	2	1	.....	2	2	7	188
Rostraver,	Westmoreland county,	1	150	.....	2	6	2	161	1	1	.....	10	1	13	174
Snowdon,	Allegheny county,	1	200	15	5	10	5	236	3	2	.....	12	2	19	255
Stonesburg,	Allegheny county,	1	90	3	2	6	1	103	1	1	.....	12	1	15	118
Snow Hill,	Fayette county,	1	123	26	2	7	1	160	1	2	.....	7	3	13	173
Stony Hill,	Fayette county,	1	109	.....	2	6	3	121	1	1	.....	7	1	10	131
Shepplar,	Westmoreland county,	1	60	.....	1	11	1	74	1	2	.....	7	2	12	86
Stockdale,	Washington county,	1	14	2	.....	2	.....	19	.....	.....	.....	1	1	2	21
Tremont,	Fayette county,	1	65	4	3	6	1	80	2	3	.....	10	1	16	96
Umpire,	Fayette county,	1	140	3	2	8	2	156	1	2	.....	5	1	9	165
Vigilant,	Washington county,	1	150	.....	1	6	1	159	1	3	.....	10	3	17	176
Vesta No. 1,	Washington county,	1	150	25	6	14	1	197	3	7	.....	15	2	27	224
Vesta No. 2,	Washington county,	1	40	10	1	5	1	58	1	2	.....	2	2	7	65
Vesta No. 3,‖	Washington county,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Walton, Upper and Lower,	Allegheny county,	2	360	15	2	20	4	403	2	5	.....	14	3	24	427
Watson,	Allegheny county,	1	90	.....	2	5	2	100	3	3	.....	8	4	18	118
Washington,	Fayette county,	1	150	3	3	8	.....	165	1	3	.....	9	2	15	180
Total,		71	8,836	349	232	538	128	10,154	103	121	....	756	132	992	11,086

‖ Idle the entire year.

TABLE NO. 4.—*List of fatal accidents that occurred in and about the mines of the First Bituminous Mine District for the year ending December 31, 1895.*

Date of accident.		Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location--County.	Nature and Cause of Accident.
Jan.	4	Stephen Ranowski,	Miner,	25	W.	1	Charleroi,	Washington,	Instantly killed by a fall of slate.
Feb.	11	Phillip Doyle,	Miner,	33	W.	1	Hackett,	Washington,	Fatally injured by a fall of roof coal.
Mar.	13	Anton Pechovie,	Miner,	43	W.	....	Hilldale,	Washington,	Fatally injured by a fall of slate.
	25	John Bello,	Miner,	19	S.	....	Chamouni,	Fayette,	Killed instantly by a fall of slate.
	25	Alonzo Hindman,	Driver,	36	*	1	Ivill,	Washington,	Fatally injured by coal cars.
April	10	Robert Dewire,	Miner,	27	S.	....	Beaumont,	Washington,	Instantly killed by a fall of coal.
	13	Thornton Doyle,	Miner,	28	W.	3	Cleveland,	Fayette,	Injured by a fall of slate, died at hospital.
	16	John Porton Schander,	Miner,	38	W.	2	Bunola,	Allegheny,	Instantly killed by flying coal from a blast.
	26	Robert Walton,	Miner,	50	W.	4	Fayette City,	Fayette,	Instantly killed by a fall of slate.
May	2	Atonio Kravo,	Miner,	46	W.	3	Cleveland,	Fayette,	Fatally injured by a fall of shale.
June	6	William Ferguson,	Miner,	41	W.	7	Little Alps,	Fayette,	Fatally injured by being struck by a post.
	8	Joseph Novack,	Miner,	27	S.	....	Manown,	Allegheny,	Instantly killed by a fall of slate.
	13	Aso Dickinson,	Miner,	43	W.	....	Germania,	Washington,	Killed by a fall of horseback.
	25	Matthew Edmundson,	Miner,	45	W.	....	Ella,	Allegheny,	Instantly killed by a fall of slate.
July	13	Batillo Ginsima,	Miner,	35	W.	9	Charleroi,	Washington,	Instantly killed by a fall of slate.
	31	Benni Lepauldo,	Miner,	39	S.	....	Blythe,	Washington,	Instantly killed by a fall of shale.
Aug.	12	John Stephanco,	Miner,	....	....	....	Fayette,	Fayette,	Injured by a fall of slate; died Aug. 30.
	17	John McIntire,	Mining machine operator,	25	W.	1	Shepplar,	Westmoreland,	Fatally injured by coal cars.
Sept.	21	Joseph Shovel,	Miner,	42	W.	2	Blythe,	Washington,	Instantly killed by a fall of slate.
	26	Sloan Trump,	Miner,	22	S.	....	Anchor,	Fayette,	Instantly killed by a fall of slate.
Oct.	4	Noah Armstrong,	Miner,	38	S.	....	Anderson,	Washington,	Instantly killed by a fall of coal.
Nov.	1	O. S. Ferree,	Miner,	48	W.	4	Allen,	Washington,	Instantly killed by a fall of roof.
	15	John Plantridge,	Miner,	30	S.	...	Washington,	Fayette,	Fatally injured by cars.
Dec.	5	Pietro Batichio,	Miner,	35	W.	3	Ivill,	Washington,	Instantly killed by a fall of slate.
	9	Luigi Perentli,	Miner,	....	....	....	Blythe,	Washington,	Injured by a fall of slate; died March 2, 1896.

* Widower.

Table No. 5.—*List of non-fatal accidents that occurred in and about the mines of the First Bituminous Mine District for the year ending December 31 1895.*

Date of accident.	Name of Person.	Occupation.	Age.	Married.	Number of children.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 1	John Hudah,	Miner,	....	....	....	Washington,	Fayette,	Leg bruised by a fall of slate.
2	Peter Schane,	Miner,	....	....	....	Washington,	Fayette,	Toe injured by a fall of coal and slate.
8	Jesse M. Baisley,	Driver,	....	S.	....	Catsburg,	Washington,	Seriously injured by coal cars.
18	Robert Hamilton,	Driver,	....	M.	....	Snow Hill,	Fayette,	Three toes and foot injured by coal cars.
Feb. 5	Henry Harbaugh,	Miner,	14	....	....	Milesville,	Allegheny,	Hip sprained by a fall of slate.
20	Richard Debar,	Miner,	....	....	....	Watson,	Allegheny,	Injured by a blast.
21	Preston Woods,	Miner,	32	M.	....	Hackett,	Washington,	Leg sprained by a fall of slate.
25	John Mano,	Miner,	35	S.	....	Acme,	Washington,	Seriously injured by a fall of coal.
May 12	William Harnell,	Miner,	19	S.	....	Caledonia,	Washington,	Leg mashed below the knee by a fall of slate; afterwards amputated.
12	William White,	Driver,	30	M.	....	Catsburg,	Washington,	Leg slightly injured by coal cars.
15	Henry Parton,	Miner,	21	S.	....	Catsburg,	Washington,	Injured by a fall of roof coal.
15	James Succia,	Miner,	....	....	....	Coal Bluff,	Washington,	Injured by a fall of coal.
16	Hugh Kelcay,	Miner,	....	....	....	Caledonia,	Washington,	Toe bruised by falling coal.
22	Matthew Fairhurst,	Miner,	24	S.	....	Snowdon,	Allegheny,	Arm broken by a fall of slate.
23	William Best,	Miner,	23	S.	....	Walton, Upper,	Allegheny,	Injured by a fall of slate.
25	James Blyth,	Driver,	....	....	....	Appolo,	Fayette,	Seriously injured by being caught between coal cars and coal pillar.
26	William McKinney,	Mining machine operator,	23	S.	....	Vesta No. 1,	Washington,	Injured by falling coal.
28	Thomas Peely,	Miner,	24	S.	....	Coal Bluff,	Washington,	Leg broken by a fall of coal.
28	John Johnson,	Miner,	30	S.	....	Caledonia,	Washington,	Head and face cut by a fall of coal.
	Michael Fitz,	Loader,	24	S.	....	Ella,	Westmoreland,	Leg broken, foot bruised and two fingers cut off by a fall of slate.
April 1	Frank Branbo,	Miner,	47	M.	....	Jefferson,	Allegheny,	Injured by a fall of coal.
1	William Connell,	Day hand,	23	S.	....	Cleveland,	Fayette,	Foot injured by railroad cars.
4	Antonia Lovatti,	Miner,	26	S.	....	Cleveland,	Fayette,	Leg broken and otherwise injured by a fall of slate.
5	Joseph Mitchell,	Miner,	17	....	....	Jefferson,	Allegheny,	Leg broken by a fall of slate.
5	Robert Green,	Miner,	....	....	....	Rostraver,	Westmoreland,	Collar bone broken by a fall of slate.
6	Joseph Million,	Miner,	35	....	....	Allequippa,	Allegheny,	Seriously injured by a fall of slate.
11	Frank Withe,	Miner,	....	S.	....	Catsburg,	Washington,	Leg injured by a fall of slate.
12	Edward Cousini,	Miner,	....	....	....	Rostraver,	Westmoreland,	Leg fractured by a fall of slate.

TABLE NO. 5.—*Continued.*

Date of accident.		Name of Person.	Occupation.	Age.	Married.	Number of children.	Name of Colliery.	Location--County.	Nature and Cause of Accident.
April	17	John Grimes,	Miner,	15			Hilldale,	Washington,	Ankle dislocated and small bone broken by a fall of coal.
	18	Henry Lucy,	Day hand,	16			Hilldale,	Washington,	Hand seriously injured by being run over by coal cars.
	18	Robert A. Crombie,	Day hand,	50			Apollo,	Fayette,	Leg fractured by coal cars.
	20	Rocci Pozzi,	Miner,	26	S.		Coal Bluff,	Fayette,	Leg broken by a fall of slate.
	25	Dominetti Gusseppi,	Miner,	36	M.		Coal Bluff,	Fayette,	Thigh broken by a fall of coal.
	27	Charles Taylor,	Driver,				Eclipse (river),	Fayette,	Leg cut off by coal cars.
	29	John Mihi,	Miner,				Apollo,	Fayette,	Seriously injured by a fall of slate.
	30	Matthew Hill,	Miner,	22	S.		Beaumont,	Washington,	Leg broken by a fall of slate.
May	1	Charles Hunt,	Miner,	23	S.		Catsburg,	Washington,	Leg broken and otherwise injured by a fall of slate.
	9	John Rabo,	Miner,	37	M.	2	Catsburg,	Washington,	Injured by coal and slate rolling on him.
	14	August Beichner,	Miner,	44	M.		Walton, Upper,	Allegheny,	Right leg broken above the knee, left leg below the knee; these injuries were caused by a fall of slate.
	17	Edward Pondexter,	Machine runner,	40	M.		Watson,	Allegheny,	Head badly cut by a fall of slate.
	21	Martin Fedar,	Miner,	38	M.		Acme,	Washington,	Two toes broken by a fall of coal.
	22	Frank Hussey,	Miner,				Snowdon,	Allegheny,	Leg broken by a fall of coal and slate.
	23	Hugh Pace,	Miner,	54	M.		Walton, Upper,	Allegheny,	Injured by a fall of coal and roof coal.
	24	James Thompson,	Driver,		S.		Haskett,	Washington,	Injured by coal cars.
	27	Henry Davis,	Miner,	22	S.		Eclipse (river),	Washington,	Injured by a fall of slate; died six days after being hurt, from an attack of pneumonia.
	28	Michael Ghilooly,	Miner,	48	M.		Eclipse (railroad),	Washington,	Leg broken at the ankle by falling over a piece of slate while trying to get out of the way of falling roof.
	28	George Pasach,	Miner,	35	M.		Acme,	Washington,	Compound fracture of the right leg by a fall of slate.
	29	William Dixon,	Miner,	17			Walton, Lower,	Allegheny,	Injured by a fall of slate.
	29	Daniel Blachford,	Miner,	33	M.		Walton, Lower,	Allegheny,	Leg broken by a fall of slate.
July	18	John Boheime,	Miner,	19	S.		Eclipse (railroad),	Washington,	Seriously injured by a fall of coal.
	31	John Gallo,	Miner,	28	M.	2	Washington,	Fayette,	Thigh broken by a fall of slate.

Aug.	8	Peter Warrich,	Driver,			Fayette City,	Fayette,	Seriously injured by being caught under loaded coal cars.
	19	Edward Acton,	Mining machine operator,			Vesta No. 1,	Washington,	Injured by being caught between trucks.
Sept.	13	William McKnight,	Filler,	17		Vesta No. 1,	Washington,	Injured by an explosion of fire damp.
	13	Valentine Bennett,	Driver,			Vesta No. 1,	Washington,	Injured by an explosion of fire damp.
	16	James Balwin,	Miner,	40	M.	Ella,	Westmoreland,	Injured by a fall of coal.
Oct.	4	William Casper,	Filler,	35	S.	Ella,	Westmoreland,	Leg broken by a fall of coal.
	7	Samuel Wick, Sr.,	Miner,		M.	Allen,	Washington,	Injured by an explosion of fire damp.
	7	J. W. Wick,	Miner,		S.	Allen,	Washington,	Injured by an explosion of fire damp.
	7	John Ouchrine,	Miner,		S.	Allen,	Washington,	Injured by an explosion of fire damp.
	8	John Downer,	Filler,	21	M.	Vesta No. 1,	Washington,	Leg broken by coal car.
	9	James Forbes,	Filler,	32	M.	Vesta No. 1,	Washington,	Finger mashed by a machine drill.
Nov.	8	William Lidwick,	Miner,	16	S.	Ella,	Westmoreland,	Injured by being struck by a sledge in the hand of his brother.
	26	James Brooks,	Miner,			Milesville,	Allegheny,	Injured by a fall of roof coal.
Dec.	4	Frank Clark,	Miner,			Anchor,	Fayette,	Injured by a fall of rock.
	5	Joseph Neumer,	Miner,			Coal Bluff,	Washington,	Injured by being caught between cars and coal pillar.

SECOND BITUMINOUS DISTRICT.

(ALLEGHENY, INDIANA AND WESTMORELAND COUNTIES.)

Irwin, February 25, 1896.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: In compliance with the requirements of section 11, article 10, of the act of Assembly, approved May 15, A. D. 1893, I have the honor of submitting my annual report as Inspector of Mines for the Second Bituminous District for the year ending December 31, 1895.

There are at present 72 mines in the district; 66 of which have been in operation during the year. One mine was in operation only 50 days, another 92 days, another 312 days, and one 313 days, but the 66 mines were in operation an average of 217 days. This is an average of 33 days more than the mines were in operation in 1894. The mines are still being improved, both in ventilation and drainage. There is a larger volume of air in a number of the mines than there was the previous year. The quantity is better divided, and the distribution has improved also. The water gauge or pressure has not increased any at these mines, thus showing that the mine officials have been careful in splitting and shortening the distance that the air has to travel. The air current in most of the mines is kept sweeping through the working places. One fan and three furnaces were erected during the year. Two air shafts were sunk and four additional openings made into the mines.

A brief description of each mine in the district is given, together with the mine improvements. The usual tables accompany the report, giving in detail the number of persons employed in each mine, the production, days worked, etc. The burning of impure oil for lighting purposes still continues, and I do not look for much abatement of this trouble until the law is changed, so as to make the parties who sell this inferior oil amenable to the law.

In addition to the ordinary duties of my office, I have been compelled to go into the courts to enforce the provisions of the mining laws in a number of instances during the last year.

I have not been reluctant to do this, because I look upon the law as mandatory in requiring me to promptly prosecute any violations thereof, either upon the part of the operators or the workmen. The

cases which I have brought to the attention of the court during the year, however, are for all kinds of infractions of the law and the rules.

I am glad to state that the court has been prompt to punish offenders, and has, on every occasion, expressed its determination to enforce the laws relating to our industry.

The following is a statement of the cases for violations of the mining laws:

Commonwealth vs. John Pedosky.	No. 60 February Term, 1895, Quarter Sessions of Westmoreland County, Penna. Indictment for opening safety lamp in the United Mine. Guilty.
Commonwealth vs. Peter Androschic.	No. 62 May Term, 1895, Quarter Sessions. Indictment for opening and relighting safety lamp, at Central Mine. Guilty. New trial refused.
Commonwealth vs. Domic Palmero.	No. 65 May Term, 1895, Quarter Sessions. Indictment for opening and relighting safety lamp. United Mine No. 2. Indicted by leave of court. Not yet found.
Commonwealth vs. Mike Kostaba.	No. 66 November Term, 1895, Quarter Sessions. Indictment for breaking open mine gate, or door, at United Mine. Guilty.
Commonwealth vs. John Rinda.	No. 67 November Term, 1895, Quarter Sessions. Indictment for breaking open mine gate or door, at United Mine. Guilty.

Commonwealth ex. rel William Jenkins, Mine Inspector, etc. vs. John McLain.	No. 176 February Term, 1896, Common Pleas of Westmoreland County, Penna. Citation issued to defendant 25th November, 1895, under the 2d section, article XVI, act of May 15, 1893, the defendant being a fire boss in Whitney mine, charged with neglect of duty. After taking testimony, and hearing arguments, the court decided that the conduct of defendant was hardly sufficient to suspend his certificate, and the petition was dismissed, with a grave admonition to the defendant as to his duties.

I investigated the charges that were made against John McLain and I found that he had examined only one place before the miners entered into their places, notwithstanding that this mine generates fire-damp at intervals, and the miners use safety lamps for lighting purposes.

While it is an unpleasant duty to go into court, which in some cases results in a loss of time, yet I believe that prompt action against violators of the law is the best way to secure the highest degree of care by all parties concerned.

The following table shows the number of accidents, their causes, etc., that occurred during the year:

	Fatal.	Non fatal.
By natural gas,		2
By falling slate,	15	17
By falling coal,	1	11
By mine wagons,	6	17
By falling roof,	3	4
By being kicked by a vicious mule,	1	2
By being caught between cage and timber,	1	
By being run over on the dilly road,	1	
By being caught by a fall of rock,	1	
By being caught by a fall of horse-back,	1	
By being struck by a post,	1	1
By being struck by a pinch bar,	1	
By being caught between railroad cars,		1
Total,	32	55
Orphans by fatalities,		41
Widows by fatalities,		16

After careful investigation of all the fatal accidents, I found that fourteen of these men were killed from carelessness on their own part. The father of one of the victims put his little boy to tamp a hole in the bottom coal, while he was doing all he could to get the coal down: if the jury had not been so sympathetic, they would have brought a verdict of manslaughter against the father. The evidence was strong enough against him. Upon examination of the place I discovered that he had set his little boy to work in a regular death trap. Several of the others who were killed, did not have sufficient knowledge to realize the fact that they were working in danger, and there were others who knew it all, and would not take any warning when it was given them, and those are the parties with whom the mine officials have the most trouble. Sixteen of the persons killed were English speaking, seven were Germans, and the other nine were foreigners of other nationalities.

I regret to have to report an increase of fourteen in the death rate, and sixteen of an increase in the non-fatal accidents. This, in a great measure can be attributed to carelessness. The mine officials have trouble in impressing on some men's minds the necessity of carefully examining their places before starting to work, and to sound the top, and examine it carefully frequently during the day for slips and cutters in the slate and roof. If the miners could be induced to carefully obey the law, and rules governing the mines, there would be fewer accidents to report.

The miners are provided with posts and everything necessary to keep them safe, but I regret to say that I hardly make a visit to a mine, but that I have to reprimand some for the careless way in which they set their posts and for not setting them when they are needed. It is true, that very many of them lack judgment, owing to not having sufficient practical experience in the mines, but there are others who are stubborn and self-willed, and it is a very hard matter to get them to do what they are told, even if it is for their safety, believing I suppose that what they do not know is not worth knowing. These are the very men who, as I have described, lost their lives this year.

Slate and mine wagons have been the cause of the greatest number of deaths and personal injuries during the year. Many of the drivers gallop their mules through the narrow passages in the mine, giving very little attention as to where they are going, or what they are running against, and so they rush headlong to their death.

I see but very little hope of lessening the number of accidents in and about the mines. The State is doing all it can. I, as a State official am trying to do all I can, and we have a set of intelligent mine officials who, I believe are trying to do what they can to keep the number of those accidents down. The operators furnish every-

thing that is necessary to keep their mines in good and safe condition, and now I believe if the employes would do their part, the number of accidents could be lessened at least one half.

The following statistics are a summary of reports from all the mines, as set out in the tables:

Mines in the district, 72.
Mines in the district operated, 66.
Number of persons employed inside of mines, 9,044.
Number of persons employed outside, 2,951.
Total number of persons employed, 11,995.
Tons of coal mined of 2,000 pounds each, 9,128,787½.
Tons of coal shipped of 2,000 pounds each, 5,140,140.
Tons of coke manufactured of 2,000 pounds each, 2,569,085.
Tons of coal mined for each fatal accident, 285,274.6.
Tons of coal mined for each non-fatal accident, 165,978.
Number of days worked by all the mines, 14,322¼.
Average number of days worked by the sixty-six mines, 217.
Number of employes for each fatal accident, 375.
Number of employes for each non-fatal accident, 218.
Number of horses and mules in use, 1,013.
Number of mine locomotives in use, 3.
Number of coke ovens in the district, 7,137.
Number of kegs of powder reported as used in the mines, 571.
Number of pounds of dynamite reported as used in the mines, 2,050.
Number of steam boilers in use, 241.
Number of pumps in use, 122.
Number of stationary engines used for hauling and hoisting coal, 74.

From the foregoing statistics the reader will see if he compares the production of 1894, which was 6,424,633 tons with this year's production, 9,128,787½ tons, that we have the enormous difference of 2,684,154½ tons. This has been the most remarkable year in the history of the district for the production of coal.

Of this large quantity, The H. C. Frick Coke Company mines produced, 1,400,133 tons. The Westmoreland Gas Coal Company mines produced, 1,046,133 tons, and the New York and Cleveland Gas Coal Company mines produced, 909,589 tons. This is the largest production in the history of these mines. The Standard No. 2 shaft alone produced 630,550 tons; Mammoth, 418,483 tons; Export, 392,055 tons, and Oak Hill No. 4, 383,342 tons. Three other mines produced over 300,000 tons. Two over 296,000 tons, and eight produced from 216,000 to 256,000 tons. The Standard No. 2 shaft leads off with the enormous production of 630,550 tons. This is a little over 2,159 tons

for every day the mine was in operation. This I believe is the largest single producing mine in the United States. There was 307 fewer men employed inside of the mines than there was in 1894, and 153 more men employed outside than there was in that year, making a difference of 154 fewer men employed in 1895 than there was in 1894. There have been no strikes or any other trouble in the district during the year. The coke companies and some of the coal companies voluntarily advanced their employes wages. This is certainly a commendable act, and should be very much appreciated by the employes.

We do hope that all strikes and lock-outs will be the legacy of the barbarous past, and that both operators and their employes will come together and reason their difficulties. I never saw any good come yet out of men coming out on a strike without trying every possible means to settle their differences; of course no man or set of men can expect to get everything their own way in the matter, unless it can be proved beyond a doubt that he or they are right. The steady employment, the increase in wages, the larger production and the fewer men employed has added greatly to the men's wages during the year. On the other hand this large production has not given the operators the remuneration for the large capital that they have invested in their plants. This is owing to the sharp competition, and the low price at which coal and coke has been selling. I believe that America beats the world in cheap fuel to-day, notwithstanding the higher wages that are being paid to the American workingman over his fellow workingman in other countries. This state of things should be attributed in a great measure to American pluck and management.

An explosion of natural gas occurred in the tunnel at the Sandy Creek mine, on March 9, by which two young men were burned. The gas escaped from a pipe that was buried below the surface. On uncovering the pipe it was discovered that there was a small crack in it, and the gas leaked from this crack into the mine, there being no avenue for its escape to the surface on account of the ground being frozen too hard. The explosion set fire to the coal, and we had quite a time in extinguishing the fire on account of its being in the old work.

One-half of the mines in the district generate explosive gases, but we have been fortunate in not having had a man burned during the year. This is owing to the great care that is being taken by the mine officials.

Respectfully submitted,

WILLIAM JENKINS,

Inspector of Mines.

Description of Mines and Mine Improvements in the Second Bituminous District.

Arona Mine.—An endless rope system of haulage has been put into the mine during the year. One pair of engines, size 16x30 inches, also one boiler 100 horse power. An engine house 30x36 feet boiler house 24x36 feet. The mine has been kept in a healthful condition, with an average of 42,848 cubic feet of air going out at the outlet per minute. This volume is divided and well conducted through the working places. The mine is also kept well drained. Mine foreman, William Nesbitt.

Atlantic Mine.—This mine was formerly the Gem mine, but was purchased by the Atlantic Crushed Coke Company, and is now operated by them. The air shaft mentioned in the last report has been reached by the air course that was being driven towards it, and on my last visit the quantity of air has been increased from 7,105 to 23,760 cubic feet per minute, being a natural current. The mine will be greatly improved when a furnace or fan is erected, and when a few changes are made in the distribution of the air, the mine can be well ventilated. It is well drained. A coke crusher has been erected at the mine. Mine foreman, John W. Sterling.

Alexander Mine.—This mine has been kept in reasonably good condition during the year. The average quantity of air passing in at the inlet per minute is 30,027 cubic feet. This volume is fairly conducted through the working places. The mine drainage is also well taken care of. Mine foreman, Daniel Campbell.

Carbon Mine.—Two water tanks of 700 barrels capacity have been erected at the mine, for the purpose of purifying the mine water for use in the boilers. A 100 horse power tubular boiler has also been erected. The general condition of the mine, both as regards healthfulness and safety is very good. The average quantity of air passing in at the inlet per minute is 46,160 cubic feet, well conducted through the working places. The drainage is also in very favorable condition. Mine foreman, Joseph Wrightman.

Claridge Mine.—A system of endless rope haulage is being introduced into this mine. The roof has been taken down, the bottom taken up and the road straightened and timbered where it was necessary. The general condition of the mine, both as regards health and safety is very good. The average quantity of air passing out at the outlet per minute is 29,403 cubic feet, and this volume is well conducted through the working places. The mine drainage is also well looked after. Mine foreman, William Johnston.

Calumet Shaft.—The general condition of this mine is very good. The average quantity of air passing at the inlet per minute is 47,618 cubic feet. This volume is divided and well circulated through the

working places. The drainage is also in very favorable condition. On my last visit, there was a squeeze or creep on some parts of the mine. The bottom or floor of the mine is soft fire clay. When the weight, or even before the weight comes on, this bottom heaves up to the roof, so that it is expensive to keep the mine open, and the only remedy that I know of to prevent creeps, is to divide the mine into sections, and drive each pair of butt headings one thousand feet, leaving a sufficient number of pillars to protect the next section, then turn the rooms at the head of each pair of butt headings, bring the room and heading pillars back, while everything stands solid ahead or back of the work. This will prevent any possibility of a creep, and is the only way to work the coal where this soft bottom exists. Mine foreman, John Nicholson.

Duquesne Mine.—A new field of coal has been opened on the double heading system. The mine mouth has been neatly timbered with 10x12 inch oak timber. An air shaft 8 feet in diameter and 39 feet deep was sunk, and a stack 22 feet in height placed on top. A furnace has been built, size 6x7x42 feet; fire bed, 7 feet from floor to comb of arch, and the arch is 25 feet in length. There is sufficient space left on each side of the furnace to prevent the coal from taking fire. The new furnace was not fired up on my last visit. The general condition of the mine has been very favorable during the year, with an average of 17,815 cubic feet of air passing at the outlet per minute. This volume comes in at three different inlets, and is fairly conducted through the mine. The drainage is kept in fair condition. Mine foreman, Mark James.

Denmark Mine.—The general condition of this mine as regards healthfulness and safety is very good. The average quantity of air passing at the outlet per minute is 52,700 cubic feet. This volume is divided and fairly conducted through the working places. The main haulage road has been graded for 1,500 feet, which enables them to haul ten wagons on each trip in place of three. Five brick stoppings have been built on the air course for the purpose of conducting the air into the face of the headings. The drainage is kept in good condition. Mine foreman, Edward Whiteman.

Derry Shaft.—An electric plant has been introduced at this mine during the year and is used for hauling coal and pumping water. It consists of one 100 Kilo-Watt general electric generator, 500 volts, running at a speed of 650 revolutions per minute, and driven by one 160 horse power Ideal engine made by the Harrisburg Foundry and Machine Company, and one 2 Moter six ton locomotive with a 1,500 pounds draw bar pull, running at a speed of ten miles per hour. This speed can be regulated to any number of miles up to ten, and is giving entire satisfaction. They are hauling fifteen empty wagons

up a 5½ per cent. grade, a distance of 4,000 feet from the shaft, and can make the round trip in fifteen minutes. They are also hauling on a 1 per cent. grade in favor of the loads, from twenty to forty wagons per trip, and they make the round trip of 8,000 feet, hauling thirty wagons, in seven minutes. The locomotive does the work of ten mules with present output, and with a greater tonnage could still dispense with more mules. The expense of operating the plant is very small compared with other haulages, as according to the testimony of the superintendent it requires only three men to operate the entire plant. Compared with the rope haulage there are no ropes or shieves to contend with. The great advantage they find, is in picking up the loads along the line anywhere. They are working six pair of headings, and in going in, they drop as many empty wagons as they wish at the different headings without stopping, and in coming out they pick up the loads with very little lost time. Besides this, they can work the locomotive anywhere. The only expense is the trolley wire. This mine is particularly well adapted to this haulage system. One advantage is in having the power and engine under control. The engineer is so situated that he can always tell when there is anything wrong with the trip, while with the rope haulage system the engineer is usually on the surface, and when a wagon jumps the track, or an accident occurs, before the trip rider can signal the engineer to stop, there is a bad wreck. The superintendent says that this is the best and cheapest haulage possible for their mine. There are ten Thompson-Houston arc lamps and fifty, sixteen candle power incandescent lamps for lighting purposes. One 5x8 inch duplex double acting plunger pump driven by one seven horse power slow speed motor, which delivers 200 gallons of water per minute against a fifty foot head. It is 4,300 feet from the power house to the pump, and they have two wires running this distance to run the pump. So far the pump has caused no trouble, and they consider it a very cheap way of pumping as compared with steam, when it had to be carried such a long distance. A sump five feet wide by eleven feet deep and one hundred and twenty feet long has been excavated near the shaft bottom, and two bore holes 1 inches in diameter and one hundred and fifteen feet deep for water. The water is pumped to the surface through these bore holes. The general condition of the mine, both as regards healthfulness and safety is very good. The average quantity of air passing at the inlet per minute is 68,250 cubic feet. The volume is divided and is well conducted through the working places. The mine is also well drained. Mine foreman, John Baker.

Graceton Nos. 1 and 2 Mines:

No. 1 Mine.—The general condition of this mine, both as regards healthfulness and safety is very good. The quantity of air going

in at the inlet per minute is 18,480 cubic feet. This volume is well conducted through the mine. The drainage is also in good condition.

No. 2 Mine.—The general condition of this mine is very good. The average quantity of air going in at the inlet per minute is 22,975 cubic feet. This volume is well distributed through the working places. The drainage is also in very good condition. Mine foreman, John Lochrie.

Greensburg Coal Company Mines.

Greensburg No. 1 Mine.—The general condition of this mine, both as regards healthfulness and safety is very good. The average quantity of air going in at the inlet per minute is 27,838 cubic feet. This volume is well distributed through the working places. The mine drainage is also in fair condition. Mine foreman, David Clark.

Greensburg No. 2 Mine.—This mine is in very favorable condition, with an average of 17,220 cubic feet of air going in at the inlet per minute. This volume is well conducted through the working places. The mine is also very fairly drained. Mine foreman, John McIntyre.

Hostetter-Connellsville Coke Company's Mines.

Hostetter Mine.—Has two new tubular boilers 60x16 inches with forty flues in each boiler. Also a Lafayette plunger mine pump 24x14x48 inches. The general condition of the mine, both as regards healthfulness and safety is very good. The average quantity of air passing at the inlet per minute is 57,250 cubic feet, this volume is well divided and circulated through the working places. The drainage is also kept in good condition. Mine foreman, George Eustis.

Whitney Mine.—A steam line 6 inches in diameter and 2,000 feet long was laid in the mine to supply steam for the pumps. The mine is kept in a safe and healthful condition. The average volume of air passing at the inlet per minute is 69,325 cubic feet. This is in five divisions and is well distributed through the working places. The mine is also well drained. Mine foreman, Matthew Laick.

The Hecla Coke Company Mines.

Hecla No. 1 Shaft.—A sump 12 feet wide by 70 feet long was excavated near the shaft bottom. The roof over the sump was timbered with 8x10 inch timber, and the pump room was timbered with 12x12 inch timber. A new Yough pump, size steam cylinder 26x48 inches, water cylinder 16x48 inches has been introduced. This work was necessary on account of the increased quantity of water that was coming into the mine. The mine is in good condition, both as regards healthfulness and safety. The average quantity of air passing at the inlet per minute was 51,330 cubic feet. This volume is well

conducted through the working places. The mine is also well drained. A new head frame has been erected at the shaft during the year. Mine foreman, William Dean.

Hecla No. 2 Shaft.—The general condition of this mine is very good. The average quantity of air passing at the inlet per minute is 55,115 cubic feet. This volume is divided and is well circulated through the working places. The mine is also well drained. Mine foreman, William Snedden.

Hampton Mine.—This mine has been kept in a healthful condition during the year. The average quantity of air passing at the outlet per minute is 21,460 cubic feet. This volume is divided and is well conducted through the working places. The mine is also well drained. Mine foreman, Edgar Thompson.

Hempfield Mine.—A tail-rope system of haulage has been introduced during the year to haul the coal from the dip workings. Size of engine, steam cylinder 12x18 inches, drums 3 feet in diameter, rope ⅞inch. The mine has been kept in very favorable condition with an average of 28,333 cubic feet of air passing at the inlet per minute. This volume is fairly conducted through the working places. The drainage is also kept in reasonably good condition. Mine foreman, E. B. Davis.

Homer Mine.—This is a small mine situated near Homer on the Indiana branch of the Pennsylvania railroad in Indiana county. They are working the upper Freeport seam, and the coal appears to be clean and of good quality. There were only seven persons employed in the mine at the time of my visit on December 30. There was no artificial system of ventilation used at this mine, but notwithstanding this, the mine was in fair condition. A man named Campbell had charge. He did not have a certificate of competency, but seemed to understand his business.

Mitchell Mine.—This mine was in reasonably good condition at the time of my last visit on April 25. There were 19 persons employed at that time, but at the end of the month the mine closed down, and has remained so. I measured at the time of my last visit 9,600 cubic feet of air in circulation per minute, and this quantity was fairly well distributed through the working places. Milton Pedicord was mine foreman.

Isabella Furnace Mine.—This mine worked only 50 days during the year, owing to the low price at which coke was selling. When the mine is in operation it is kept in a safe and healthful condition, with an average of 50,000 cubic feet of air passing at the outlet per minute. This volume is fairly well distributed through the working places. The drainage is also kept in good condition. Mine foreman, Morris J. Lewis.

Jamison Mine.—An Ingersoll-Sergeant air compressor has been erected at the mine during the year for the purpose of pumping the water out of the dip workings, and also running four mining machines; size of compressor, steam cylinder 18x24 inches, air cylinder 18x24 inches, steam pressure 80 pounds, air pressure 85 pounds. A tubular boiler 5 feet in diameter and 16 feet long furnishes the steam for the plant. The average quantity of air passing at the outlet per minute was 7,418 cubic feet. This is not sufficient to keep the mine in a healthful condition, owing to the increased quantity of powder used to blast the coal down after the introduction of the mining machines. On my last visit they promised to erect a larger fan as soon as they could, to take the place of the small one now in use. The drainage is in reasonably good condition. Mine foreman, John A. Hart.

Lucesco Mine.—This mine is in favorable condition, both as regards healthfulness and safety. The average quantity of air passing at the outlet per minute is 5,180 cubic feet. This quantity is fairly distributed through the working places. The drainage is in favorable condition. Mine foreman, William Severn.

Lockport Mine.—This mine worked only a few months during the year. On my visit December 31, there were only nine persons employed inside. The mine was in reasonably good condition, with 3,420 cubic feet of air passing at the inlet per minute. George H. Richards was acting as mine foreman.

Loyalhanna Coal and Coke Company's Mines.

Loyalhanna No. 1 Shaft.—The general condition of this mine is very favorable. The average quantity of air passing at the inlet per minute is 30,530 cubic feet. This volume is divided and is fairly conducted through the working places. The mine is also kept well drained.

Loyalhanna No. 2 Shaft.—This shaft is connected underground with No. 1 shaft, and is ventilated by the same fan. The mine is in a safe and healthful condition. The average quantity of air in circulation is 17,280 cubic feet per minute. This volume is in two divisions, and is fairly well conducted to the face of the working places. All the mine water from the three shafts is pumped out of this shaft. The mine is generally kept well drained. E. W. Altman is mine foreman of both these mines.

Pandora Shaft.—The general condition of this mine, both as regards healthfulness and safety is very good. The average quantity of air passing in at the inlet per minute is 50,800 cubic feet. This volume is split into three divisions, and is well conducted through the working places. The mine drainage is also in very favorable condition. Mine foreman, Enoch Rowley.

Latrobe Coal Works Mine.—The general condition of this mine, both as regards healthfulness and safety is very good. The average quantity of air passing at the inlet per minute is 35,100 cubic feet. This volume is divided into three splits and is well conducted through the working places. The mine is also well drained. There are now in course of erection thirty ovens of the Newton-Chambers By-Product type. Mine foreman, Stephen Arkwright.

Millwood Shaft.—A ditch 370 feet long and 12 feet at the deepest point, has been driven to drain a large swamp; the drain will bring the water from this swamp to the shaft bottom. When the ditch is completed the mine will be well drained. The general condition of the mine has been very favorable, with an average of 21,895 cubic feet of air passing at the outlet per minute. This volume is fairly well conducted through the working places. Mine foreman, Thomas Thomas.

M. Saxman Mine.—This mine has been kept in favorable condition, both as regards healthfulness and safety. The average quantity of air passing at the outlet per minute is 10,840 cubic feet. This volume is well distributed through the working places. The mine is kept well drained. Mine foreman, John C. Dovey.

Maher Nos. 1 and 2 Mines:

No. 1 Mine is in fair condition. There are only a few ribs and heading stumps left in the mine, and they will be finished within the next year.

No. 2 Mine is in good condition, both as to healthfulness and safety. The average volume of air in circulation is 7,980 cubic feet per minute. The drainage is very good. William Beveridge is mine foreman of both these mines.

Madison Mine.—The general condition of this mine as regards healthfulness and safety is very good. The average volume of air passing at the inlet per minute was 36,543 cubic feet. On my last visit I measured 51,840 cubic feet passing in. This additional quantity was obtained by an improved system of splitting the volume of air. The drainage is also in favorable condition. Mine foreman, Harry Gardner.

Pleasant Valley Mine.—This mine is in good condition, both as regards ventilation and drainage. The average quantity of air passing out at the outlet per minute is 16,200 cubic feet. This volume is well conducted through the working places. The outside improvements are, a scale house; three sets of railroad scales have been put in and 145 feet of substantial shed built over the tipple. Mine foreman, Joseph H. Powell.

Penn Gas Coal Company's Mines.

Penn Gas No. 1 Shaft. The condition of this mine both as regards healthfulness and safety is very good. The average quantity of air

passing at the outlet per minute is 53,008 cubic feet. This volume is well conducted through the working places. The drainage is also in good condition. Mine foreman, John Bolam.

Penn Gas No. 2 Shaft.—This mine has been kept in a healthful condition during the year, with an average of 43,700 cubic feet of air passing at the outlet per minute. This volume is divided and fairly conducted through the working places. The drainage is in good condition. Mine foreman, William Jamison.

Penn Gas Coal Run Mine.—This mine is well looked after, and is kept in a safe and healthful condition, with an average of 37,083 cubic feet of air passing out at the outlet per minute. This volume is divided and well conducted through the working places. The drainage is also in good condition. Mine foreman, William Rodgers.

Penn Gas No. 4 Mine.—The condition of this mine is favorable. The average quantity of air passing out at the outlet per minute is 37,653 cubic feet. There are four inlets into the mine so that the air is fairly distributed through the working places. A No. 10 Cameron pump has been placed in the mine, and a 6 inch diameter pipe 1,800 feet in length, carries the steam from the boiler outside to feed the pump. This enables them to pump the water out of a large swamp. The drainage is now in fair condition. Mine foreman, John Giles.

Penn Manor Shaft.—The general condition of this mine has been very good during the year, with an average of 38,430 cubic feet of air passing at the inlet per minute. This volume is in three splits and is well distributed through the working places. The mine drainage is also well taken care of. Mine foreman, Samuel Ferguson.

The S. H. Smith's Mine.—This mine has been kept in a very favorable condition during the year. The average quantity of air passing at the outlet per minute is 15,090 cubic feet. This volume is fairly conducted through the working places. The drainage is also well kept up. Mine foreman, Daniel Craig.

Spring Hill No. 2 Mine.—The condition of this mine, both as regards healthfulness and safety is very good. The average quantity of air passing at the outlet per minute is 25,585 cubic feet. This volume is divided and well conducted through the working places. The drainage is also in very good condition. Mine foreman, William B. Morris.

Saint Clair Mine.—This mine has been kept in reasonably good condition during the year, with an average of 25,320 cubic feet of air passing at the outlet per minute. This volume is divided and is fairly conducted through the working places. The drainage is also in fair condition. Mine foreman, James Wardly.

Graff Mine.—This mine is in favorable condition, with an average of 5,420 cubic feet of air in circulation per minute. The drainage is all right. Mine foreman, William Hamer.

Strickler Mine.—An air and pumping shaft has been sunk at the mine during the year. The shaft is 6x8 feet in area and 74 feet in depth. A boiler house 14x44 feet has been erected, and a tubular boiler 54 inches in diameter and 28 feet long placed in the boiler house to furnish steam for the pump. There is a great deal of trouble here with soft bottom, and there has been a squeeze on the mine. To prevent any further squeeze they intend to drive the butt headings to their destination before turning any rooms, and then commence to turn the rooms at the head of the entries, which is a very wise plan in order to work out all the coal. The mine is kept in reasonably good condition, with an average of 26,000 cubic feet of air passing at the inlet per minute. This volume is fairly conducted through the working places. The drainage is also in reasonably good condition. Mine foreman, Alexander Davenport.

Smith's Mine.—The general condition of the mine, both as regards healthfulness and safety is very good. The average quantity of air in circulation per minute is 4,355 cubic feet. The mine drainage is also in favorable condition. Mine foreman, Roy Gerard.

Turner Mine.—This mine is kept in a healthful condition, with an average of 7,860 cubic feet of air passing out at the outlet per minute. This volume is fairly distributed through the working places. The drainage is also in fair condition. Mine foreman, J. C. Turner.

Ocean No. 1 Shaft.—An air compressor has been erected during the year, size, steam cylinder 24x30 inches low pressure. The compressed air is used to run five mining machines, and also to pump the water from the dip workings to the shaft bottom. There were eleven overcasts built for the purpose of conducting air to the face of the workings, thus doing away with the use of doors, which are always annoying in a mine. A mule stable 20x120 feet has been excavated in the solid coal strata. The mine has been kept in a reasonably good and healthful condition during the year with an average of 52,810 cubic feet of air passing at the inlet per minute. This volume is divided into five splits and is fairly conducted through the working places. On my last visit, the volume of air had been increased to 70,460 cubic feet per minute. This has been done on account of a large volume of fire-damp C. H.-4 that was passing off from one of the main headings which was being driven in the solid coal. Some of the headings are still dipping, and the roof is ripping in several others. This has been an expense and annoyance to the

company and management. This we hope will not continue long. The drainage is in very fair condition. Mine foreman, William Bainbridge.

H. C. Frick Coke Company Mines.

Mammoth Shaft and Slope.—These mines have been kept in a safe and healthful condition during the year. The average quantity of air passing at the inlet per minute is 58,455 cubic feet. This volume is judiciously divided and well conducted through the working places. The mine is also kept well drained. They have extended the rope haulage five hundred feet into second and fourth left flats, and third right flat on the main dip. The tail-rope system had to be used on these flats on account of the grade being light. They use a $\frac{5}{8}$ inch rope. Mine foreman, Daniel Alsop.

Monastery Slope.—A steam line two inches in diameter and seven hundred feet long, and two water lines, one 4 inches in diameter and fifteen hundred feet long, the other 2 inches in diameter and eleven hundred feet long for the purpose of pumping the water from the dip headings to the pumping station have been introduced. A No. 6 Cameron pump 12x18 inches is used for that purpose. There were 4,500 feet of roof taken down to level up a large swamp. The mine is now in good condition, both as regards healthfulness and safety. The average quantity of air passing at the outlet per minute is 34,825 cubic feet. This volume is divided and is well conducted through the working places. Mine foreman, George W. Wilkes.

Standard No. 2 Shaft.—The general condition of this mine, both as regards healthfulness and safety is very good. The average quantity of air passing at the inlet per minute is 134,920 cubic feet. This volume is divided into several splits, and is well distributed through the working places. The mine is also well drained. The mine gives off considerable fire-damp C. H.-4 from the strata, when the pillars are taken out, and the roof falls in. This gas is forced out of the gobs by a strong current of air, after the men except those who attend to this duty are all out of the mine. Mine foreman, Robert Hay.

Standard Slope.—After nearly two years of idlesness this mine has started up again, and has been cleaned up and retimbered where necessary. On my last visit I measured 34,720 cubic feet of air passing at the inlet per minute. This volume was divided into three splits and was well conducted through the working places. The drainage is also in good condition. Mine foreman, Alexander Erskine.

United No. 2 Slope has a Guibal reversible fan 16 feet in diameter which is driven by a direct engine 14x18 inches. The average quantity of air passing in per minute was 51,847 cubic feet. On my last

visit after the new fan was started, I measured at the inlet 76,200 cubic feet passing in. The distribution of this volume is very fair. When the contemplated improvements will have been made, such as heading connection and overcasts, the mine will be as well ventilated as any mine in the region. The drainage is in fair condition. A brick fan house 16x24 feet has been erected, also two flue boilers five feet in diameter and fourteen feet long, to furnish steam for the plant. The main rope haulage has been extended eight hundred feet further into the dip. Mine foreman, John W. Greaves.

United Coal and Coke Company's Mines.

United No. 1 Shaft.—An air compressor has been erected at the mine, and is used to pump the water out of the dip heading; size steam cylinder 12x18 inches, air cylinder 14x18 inches. The general condition of the mine, both as regards healthfulness and safety is very good. The average quantity of air passing at the inlet per minute is 79,183 cubic feet. This volume is divided into four splits and is well conducted through the working places. The drainage is now in very good condition. Mine foreman, John A. Trimbath.

United No. 3 Mine.—Eight persons only are employed in this mine at present, but it is kept in good condition, with an average of about 20,000 cubic feet of air passing at the inlet per minute.

Weinman Mine.—An additional opening has been made into this mine during the year, for an air and water course. On my last visit there were only nine persons employed in the mine. The mine is in reasonably good condition. I measured 2,400 cubic feet of air in circulation per minute. Mine foreman, Jacob Weinman.

New York-Cleveland Gas Coal Company Mines.

Sandy Creek Mine.—The general condition of this mine, both as regards healthfulness and safety has been very good during the year. The average quantity of air passing at the outlet per minute was 32,373 cubic feet. At my request a small basket furnace was erected in a section of the mine where the large furnace did not have much power over the ventilation, and the quantity was increased to 52,320 cubic feet. There are seven inlets into the mine, so that the distribution of this volume through the working places is very good. The mine is also well drained. Mine foreman, Joseph Corbett.

Plum Creek Mine.—Improvements: An air shaft 9 feet in diameter and 55 feet in depth with stack 34 feet high placed on top. A furnace has been built size 10x11=110 feet fire bed, seven feet from floor to comb of arch, and 9 inches of a space between the two arches. There is a manway on each side of furnace to prevent the coal from taking fire. The furnace arch is 40 feet long. After the

erection of this new furnace the quantity of air was increased from 22,360 to 43,780 cubic feet per minute. A new opening to another field of coal has been made. This opening is neatly timbered with 10x12 inch oak timber. The haulage road has been graded for a long distance. The mine is now in excellent condition, both as regards healthfulness and safety. The air is well conducted through the working places, and the mine is kept well drained. Mine foreman, William W. Carter.

Oak Hill No. 4. Mine.—The general condition of this mine both as regards healthfulness and safety is very good. The average quantity of air passing at the outlet per minute is 30,543 cubic feet. This volume comes in at five separate inlets, and is well distributed through the working places. The drainage is in good condition. Mine foreman, William P. Owens.

Ocean Mine.—On my last visit, there were only eight persons employed. The mine was in favorable condition, both as regards drainage and ventilation. Mine foreman, Gottleib Vogle.

Westmoreland Gas Coal Company Mines.

Westmoreland Shaft.—Extensive improvements have been made in the mine during the year. Forty-six hundred feet of heading were widened out for double track, which was uniformly graded for the purpose of extending the endless rope haulage for that distance. The advantage of this system of haulage is, that the full trip assists in bringing the empty one in, and whenever the distance is increased, an additional trip can be attached to the rope, so that the output can be kept up at the same rate. Four hundred and fifty feet of double track have been graded through the rock roof, six feet high at the deepest point, to fill up a large swamp, and three thousand feet of roof ripped to make the grade uniform. The mine has been kept in a healthful and safe condition during the year, with an average of 62,608 cubic feet of air passing at the outlet per minute. This volume is well conducted through the working places. The mine is also well drained. Mine foreman, James Thompson.

Export Mine.—There have been fifty-five hundred feet of haulage track laid, and an endless rope system of haulage put in. This haulage had been in use at the South Side mine for a short time before it was removed to Export. The empty trip goes in on the one heading, and the full trip comes out on the other. It is thirty-three hundred feet to the first station where the coal is taken from the main headings, and twenty-two hundred feet up the butt headings to the second station. This system of haulage works well, and gives entire satisfaction. An additional inlet has been made which increases the quantity of air 14,107 cubic feet. There are now 47,330 cubic feet of air passing at the outlet per minute. This volume is divided and

is fairly distributed through the working places. The mine is kept well drained. Mine foreman, George Carroll.

Larimer No. 4 Mine.—This mine is being kept in a safe and healthful condition, with an average of 64,305 cubic feet of air passing at the inlet per minute. This volume is divided into nine splits, and is fairly conducted through the working places. The mine is also kept well drained. Mine foreman, John Williams.

South Side Mine.—This mine is connected with the Larimer No. 4 mine, and is ventilated by the return air from that mine. The mine is kept in good condition. There are only a few persons employed in getting out custom coal. Mine foreman, John Williams.

The Southwest Connellsville Coal and Coke Company Mines.

No. 1 "A" Shaft.—The general condition of this mine as regards healthfulness and safety is very good. The average quantity of air passing at the inlet per minute is 108,780 cubic feet. This volume is divided into several splits and is well conducted through the working places. The mine is also well drained. Mine foreman, John L. Duncan.

No. 1 "B" Shaft.—This mine has been kept in a healthful condition during the year, with an average of 73,840 cubic feet of air passing at the inlet per minute. This volume is properly divided and circulated through the working places. There were 3,100 feet of Wickoff pipe laid in the mine, which is used for draining the mine water from the "B" shaft. The mine is kept well drained. Mine foreman, John Whitfield.

Alice No. 2 Mine.—The general condition of this mine is excellent. The average quantity of air passing at the inlet per minute is 85,460 cubic feet. This volume is well divided and conducted through the working places. The mine is also kept well drained. Mine foreman, William H. Howarth.

No. 3 Shaft.—The new opening spoken of in the last report, has been completed, and the headings have been driven a long distance and nearly all the men are working on the new side at present. The roof was taken down from the old pit mouth, to the shaft bottom to a proper height, and sixty-nine pair of double timbers well framed were set up. On the outside of the pit mouth a wall seventy-five feet long, with an average of fifteen feet high has been built on both sides of the track. This is a very neat job of work, and it will keep the sides from crumbling onto the tracks. The mine has been kept in a safe and healthful condition during the year. The average quantity of air passing at the inlet per minute is 63,400 cubic feet. This volume is divided into five splits, and is well distributed through the working places. The mine is also kept well drained. Mine foreman, Robert Hair.

No. 4 Mine.—The general condition of this mine, both as regards healthfulness and safety has been very good. The average quantity of air passing at the inlet per minute is 42,960 cubic feet. This volume is well divided and properly conducted through the working places. The drainage is also well looked after. Mine foreman, Robert Morris.

TABLE 1.—*Showing location, etc., of collieries in the Second Bituminous Mine District.*

Name of Colliery.	Name of Operator.	Location—County.	Name of Superintendent.	Postoffice Address.
Arona	Arona Gas Coal Company,	Westmoreland,	Lund Washington,	Darragh.
Atlantic,	Atlantic Curshed Coke Company,	Westmoreland,	H. C. Burket,	Greensburg.
Arnold,		Westmoreland,		
Alexandria,	Alexandria Coal and Coke Company,	Westmoreland,	Thomas Donohoe,	Greensburg.
Carbon,	Carbon Coal and Coke Company,	Westmoreland,	William M. Singer,	Greensburg.
Claridge,	Claridge Gas Coal Company,	Westmoreland,	J. Howard Patton,	Greensburg.
Calumet shaft,	Calumet Coke Company,	Westmoreland,	S. M. Hawkins,	Calumet.
Denmark,	Manor Gas Coal Company,	Westmoreland,	A. P. Cameron,	Claridge.
Derry shaft,	Derry Coal and Coke Company,	Westmoreland,	E. T. Saxman,	Latrobe.
Duquesne,	Corey Coal Company,	Allegheny,	W. L. Dixon,	No. 15 Brushton ave, P'b'g.
Export,	Westmoreland Gas Coal Company,	Westmoreland,	A. N. Humphreys,	Irwin.
Frankstown,	Weinman Brothers,	Allegheny,	Jacob Weinman,	Wilkinsburg.
Greensburg No. 1,	Greensburg Coal Company,	Westmoreland,	Thomas L. Jones,	Greensburg.
Greensburg No. 2,	Greensburg Coal Company,	Westmoreland,	Thomas L. Jones,	Greensburg.
Graff,	Blairsville Coke Company, Limited,	Indiana,	Jacob Graff,	Blairsville.
Graceton Nos. 1 and 2,	McCreary Coke Company,	Indiana,	Harry McCreary,	Graceton.
Hostetter,	Hostetter Connellsville Coke Company,	Westmoreland,	John T. Rush,	Whitney.
Hempfield,	Hempeld Coal Company,	Westmoreland,	Thomas L. Jones,	Greensburg.
Hecla No. 1 shaft,	The Hecla Coke Company,	Westmoreland,	Thomas Laird,	South West.
Hecla No. 2 shaft,	The Hecla Coke Company,	Westmoreland,	Thomas Laird,	South West.
Hampton,	Hampton Coal Mines,	Allegheny,	John S. Stewart,	Edgewood Park.
Isabella Furnace,	Isabella Furnace Company,	Westmoreland,	W. C. Gilst,	Blairsville.
Jamison,	Jamison Coal Company,	Westmoreland,	Thomas S. Jamison,	Greensburg.
Lucesco,	Bell Coal Company,	Westmoreland,	William Severn,	Lucesco.
Lockport,	Bolivar Coal and Coke Company,	Westmoreland,	George H. Richards,	Lockport.
Larimer No. 4	Westmoreland Gas Coal Company,	Westmoreland,	A. N. Humphreys,	Irwin.
Latrobe Coal Works,	Latrobe Coal Company,	Westmoreland,	D. W. Jones,	Latrobe.
Loyalhanna No. 1 shaft,	Loyalhanna Coal and Coke Company,	Westmoreland,	R. M. McKinney,	Latrobe.
Loyalhanna No. 2 shaft,	Loyalhanna Coal and Coke Company,	Westmoreland,	R. M. McKinney,	Latrobe.
Millwood shaft,	The Millwood Coal and Coke Company,	Westmoreland,	E. B. Kimmell,	Millwood.
M. Saxman,	M. Saxman, Sr., & Co.,	Westmoreland,	Frank Kiernan,	Latrobe.
Madison	Madison Gas Coal Company,	Westmoreland,	Thomas Donohoe,	Darragh.
Mammoth Nos. 1 and 2,	H. C. Frick Coke Company,	Westmoreland,	Charles B. Frank,	Mammoth.
Monastery slope,	H. C. Frick Coke Company,	Westmoreland,	A. F. Downing,	Latrobe.
Mitchell,	Indiana Coal Company,	Indiana,	Jacob Graff,	Blairsville.
Maher Nos. 1 and 2,	Maher Coal and Coke Company,	Indiana,	Thomas Maher,	Blairsville.
No. 1 "A" and "B" shafts,	South West Connellsville Coke Company,	Westmoreland,	William S. Ramsey,	Mt. Pleasant.
No. 2,	South West Connellsville Coke Company,	Westmoreland,	John Q. Finch,	Mt. Pleasant.
No. 3,	South West Connellsville Coke Company,	Westmoreland,	James A. Cowan,	Tarr.
No. 4,	South West Connellsville Coke Company,	Westmoreland,	J. W. Whitlaw,	Alverton.
Ocean No. 1 shaft,	Ocean Coal Company,	Westmoreland,	F. J. Kimball,	Hermine.
Oak Hill No. 4,	New York and Cleveland Gas Coal Co.,	Allegheny,	T. B. De Armit,	Turtle Creek.
Ocean,	Gottlieb Vogele,	Allegheny,	Gottlieb Vogele	Wilkinsburg.
Plum Creek,	New York and Cleveland Gas Coal Co.,	Allegheny,	T. B. De Armit,	Turtle Creek.

TABLE NO. 1.—*Continued.*

Name of Colliery.	Name of Operator.	Location - County.	Name of Superintendent.	Postoffice Address.
Pleasant Valley,	Elkins Gas Coal Company,	Westmoreland,	F. Z. Schellenberg,	820 Penn ave., Pittsburg.
Penn Manor shaft,	Penn Manor Shaft Coal Company,	Westmoreland,	Samuel Ferguson,	Harrison City.
Pandora shaft,	Loyalhanna Coal and Coke Company,	Westmoreland,	R. M. McKinney,	Latrobe.
Penn Gas No. 1 shaft,	Penn Gas Coal Company,	Westmoreland,	John F. Wolf,	Irwin.
Penn Gas No. 2 shaft,	Penn Gas Coal Company,	Westmoreland,	John F. Wolf,	Irwin.
Penn Gas No. 3 shaft,	Penn Gas Coal Company,	Westmoreland,	John F. Wolf,	Irwin.
Penn Gas No. 4,	Penn Gas Coal Company,	Westmoreland	John F. Wolf,	Irwin.
Penn Gas Coal Run,	Penn Gas Coal Company,	Westmoreland,	John F. Wolf,	Irwin.
Penn Gas slope,	Penn Gas Coal Company,	Westmoreland	John F. Wolf,	Irwin.
Strickler,	J. A. Strickler Coke Company, Limited,	Westmoreland	J. A. Strickler	South West.
S. H. Smith,	The Ligonier Coal Company,	Westmoreland,	Daniel Craig,	Latrobe.
Standard No. 1 shaft,	H. C. Frick Coke Company,	Westmoreland	Robert Ramsay,	Mt. Pleasant.
Standard No. 2 shaft,	H. C. Frick Coke Company,	Westmoreland,	Robert Ramsay,	Mt. Pleasant.
Standard slope,	H. C. Frick Coke Company,	Westmoreland,	Robert Ramsay,	Mt. Pleasant.
Saint Clair,	Saint Clair Coal and Coke Co., Limited,	Westmoreland,	M. A. Preston,	Bradenville.
Smith's,	Robert Smith,	Indiana,	Robert Smith,	Blairsville.
Sandy Creek,	New York and Cleveland Gas Coal Co.,	Allegheny,	William Fisher,	White Ash.
Spring Hill No. 2,	Spring Hill Gas Coal Company,	Allegheny,	E. W. Boyd,	Turtle Creek.
Turner's,	J. M. Turner,	Indiana,	J. M. Turner,	Blairsville.
United No. 1 shaft,	United Coal and Coke Company,	Westmoreland,	John M. White,	United.
United No. 2,	H. C. Frick Coke Company,	Westmoreland,	Charles J. Warnock,	Ferre.
United No. 3,	United Coal and Coke Company,	Westmoreland,	John M. White,	United.
Whitney,	Hostetter Connellsville Coke Company,	Westmoreland,	John T. Rush,	Whitney.
Westmoreland shaft,	Westmoreland Gas Coal Company,	Westmoreland,	A. N. Humphreys,	Irwin.
Weinman,	Weinman Brothers,	Allegheny,	Jacob Weinman,	Wilkinsburg.
Westmoreland Car Shops,	Westmoreland Gas Coal Company,	Westmoreland,	A. N. Humphreys	Irwin.

TABLE No. 2.—*Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, etc, in the Second Bituminous Mining District for the year ending December 31, 1895.*

Names of Collieries.	Location. County.	Total production in tons of coal.	Total product on in tons of coke.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder and pounds of dynamite used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Number coke ovens.
Arona,	Darragh, Westmoreland,	120,454	.....	120,454	209	145	.....	2	.....	2	6	.....	.....
Atlantic,	Bradenville, Westmoreland,	32,000	6,800	20,900	154½	91	.....	.....	.....	2	7	.....	79
Arnold,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alexandria,	Goff, Westmoreland,	121,965	27,509	80,701	163½	180	.....	1	.....	2	22	.....	192
Carbon,	Greensburg, Westmoreland,	124,825	8,814	113,954	207	175	2	.....	.....	3	32	.....	48
Claridge,	Claridge, Westmoreland,	149,199	.....	149,199	203	182	.....	.....	20	.....	15	.....	.....
Calumet shaft,	Calumet, Westmoreland,	186,790	132,000	.....	284	257	1	.....	.....	6	24	.....	225
Denmark,	Claridge, Westmoreland,	123,413	.....	120,659	209	181	1	2	.....	4	12	.....	.....
Derry shaft,	Bradenville, Westmoreland,	151,17[illegible]½	66,736	70,876	239	215	.....	.....	.....	3	20	.....	184
Duquesne,	Wilkinsburg, Allegheny,	110,654	.....	110,654	261	167	1	.....	.....	2	13	1	.....
Export,	Export, Westmoreland,	392,055	.....	389,909	284	518	2	2	.....	3	25	.....	.....
Frankstown,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Greensburg No. 1,	Greensburg, Westmoreland,	91,760	.....	91,760	157	112	.....	.....	.....	1	13	.....	0
Greensburg No. 2,	Greensburg, Westmoreland,	31,218	.....	31,218	132	33	.....	.....	.....	1	3	.....	.....
Graff,	Blairsville, Indiana,	19,500	.....	19,500	300	23	.....	.....	.....	.....	2	.....	24
Graceton Nos. 1 and 2,	Graceton, Indiana,	10,680	7,121	.....	92	104	.....	.....	.....	2	11	.....	181
Hostetter,	Hostetter, Westmoreland,	229,000	141,000	14,500	305	303	1	.....	.....	4	20	.....	305
Hempfield,	Greensburg, Westmoreland,	135,120	.....	133,500	312	143	.....	2	.....	4	16	.....	.....
Hampton,	Wilkinsburg, Allegheny,	35,790	.....	33,622	193¼	103	.....	.....	.....	.....	12	.....	.....
Hecla No. 1 shaft,	South West, Westmoreland,	163,031	110,703	.....	264	224	.....	.....	.....	8	30	.....	272
Hecla No. 2 shaft,	Tranger, Westmoreland,	217,984	149,062	.....	259	268	2	1	[illegible]	8	29	.....	500
Isabella Furnace,	Cokeville, Westmoreland,	24,000	15,000	.....	50	225	.....	.....	.....	3	20	.....	251
Jamison,	Donohoe, Westmoreland,	57,382	11,495	40,140	230	96	.....	.....	*2230	3	6	.....	60
Lucesco,	Lucesco, Westmoreland,	13,923	.....	9,920	29	38	.....	.....	264	..	2	.....	.....

*50 pounds of dynamite. *and 2,000 pounds of dynamite.

TABLE NO. 2.—*Continued.*

Names of Collieries.	Location—County.	Total production in tons of coal.	Total production in tons of coke.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder and pounds of dynamite used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Number coke ovens.
Lockport	Lockport, Westmoreland	3,900	700	3,200	110	13				1	1		53
Larimer No. 4	Larimer, Westmoreland	348,629		345,602	266	478	2	2		4	24		
Latrobe Coal Works	Latrobe, Westmoreland	154,662	31,173	106,885	241	177				4	16		106
Loyalhanna No. 1 shaft	Loyalhanna, Westmoreland	195,414	23,824	135,337	248	205				6	22		136
Loyalhanna No. 2 shaft	Latrobe, Westmoreland												
Millwood shaft	Millwood, Westmoreland	95,730		92,407	287	155	1	3	50	6	12		
M. Saxman	Latrobe, Westmoreland	49,247	8,918	35,167	200	91				2	10		60
Madison	Darragh, Westmoreland	165,229		164,352	263	231	1			2	20		
Mammoth Nos. 1 and 2	Mammoth, Westmoreland	418,483	256,500	33,600	299	459	1			12	38		510
Monastery slope	Latrobe, Westmoreland	85,700		85,700	171	102			5	11	12		208
Ocean No. 1 shaft	Herminie, Westmoreland	216,701		210,480	260	287	1	1		3	23		
Maher Nos. 1 and 2	Blairsville, Indiana	28,341		28,231	278	27					3		
No. 1 "A" shaft	Mt. Pleasant, Westmoreland	593,680	395,410		308	642	1			19	54		620
No. 1 "B" shaft	Mt. Pleasant, Westmoreland						3	1					
No. 2 slope	Mt. Pleasant, Westmoreland	238,790	158,780		308	230				3	29		250
No. 3 shaft	Tarr's, Westmoreland	196,845	113,970		307	214				8	28		180
No. 4 drift	Alverton, Westmoreland	130,020	86,520		307	140		1		2	12		150
Oak Hill No. 4	Turtle Creek, Allegheny	383,342		383,342	247¾	392		3		2	20		
Ocean	Wilkinsburg, Allegheny	4,329		4,329	298	8					2		
Plum Creek	Negley, Allegheny	300,936		300,936	284¾	307	2			1	14	1	
Pleasant Valley	Harrison City, Westmoreland	74,022		74,022	236	99	1	1			6		
Penn Manor shaft	Manor, Westmoreland	82,850		46,718	310	99				4	7		43
Pandora shaft	Loyalhanna, Westmoreland	43,713		40,000	147	147				3	8		
Penn Gas No. 1 shaft	Irwin, Westmoreland	181,860		177,041	18½	283		1		8	27		
Penn Gas No. 2 shaft	Irwin, Westmoreland	191,604		184,759	187½	311		8		8	33		
Penn Gas Coal Run	Irwin, Westmoreland	70,647		69,894	176½	104		1			8		
Penn Gas No. 4	Sewickley, Westmoreland	104,751		103,842	101½	211	1			3	25		
Strickler	South West, Westmoreland	125,814		124,660	296	71		1		3	8		
S. H. Smith	Latrobe, Westmoreland	31,288		31,288	241	32		2			2		
Standard slope	Mt. Pleasant, Westmoreland	24,800											

Standard No. 2 shaft	Mt. Pleasant, Westmoreland	6,0[illegible],350	136,200	....	....	202	73[illegible]	....	....	....	21	67	....	....	10[illegible]
Saint Clair	Bradenville, Westmoreland	51,619	16,350	38,504	1[illegible]0	110	11[illegible]	3	2	....	5	12	....	....	12[illegible]
Smiths	Blairsville, Indiana	24,000	....	24,000	2[illegible]0	20	20	....	....	....	....	4	....	....	....
Sandy Creek	White Ash, Allegheny	225,320	....	225,320	296[illegible]2	30[illegible]	90	1	3	....	1	24	1	....	....
Spring Hill No. 2	Wall's, Allegheny	56,432	....	56,432	313	24	24	....	....	2	1	7	....	....	....
Turner's	Blairsville, Indiana	20,904	....	20,904	205	24	24	....	....	....	....	2	....	....	....
United No. 1 shaft	United, Westmoreland	256,720	62,700	161,000	202	11	11	....	1	....	7	29	....	....	30[illegible]
United No. 2	Feree, Westmoreland	240,000	160,400	....	277	280	280	....	3	....	8	26	....	....	30[illegible]
United No. 3	Mutual, Westmoreland	1,222	....	....	62	\	....	....	2	....	1	....	1	....	15[illegible]
Whitney	Whitney, Westmoreland	228,000	140,300	14,000	205	294	294	....	....	....	4	20	....	....	30[illegible]
Weinman	Wilkinsburg, Allegheny	5,648	....	5,618	27	1[illegible]	1[illegible]	....	....	....	....	1	....	....	....
Westmoreland shaft	Biddle, Westmoreland	395,459	....	295,395	276	371	371	3	....	....	14	26	....	....	90
Larimer Coke Plant	Larimer, Westmoreland	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Westmoreland Car Shops	Irwin, Westmoreland	....	....	....	....	44	....	....	....	....	1	....	....	....	....
Total		9,1[illegible],787[illegible]	2,569,985	5,140	140	14,322[illegible]	11,9[illegible]	32	55	571	241	1,013	3	1,137	

TABLE No. 3.—*Showing the number of each class of employes at each colliery in the Second Bituminous Mine District during the year 1895.*

Names of Collieries.	Location—County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							
		Inside foreman or mine boss.	Miners.	Miners' boys.	All company men.	Drivers and runners.	Doorboys.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Cokers and yard men.	All company men.	Superintendents, book keepers and clerks.	Total outside.	Grand total, inside and outside.
Arona,	Darragh, Westmoreland,	1	101	17	5	6	2	132	.....	2	3	.....	6	2	13	145
Atlantic,	Bradenville, Westmoreland,	1	34	.....	1	5	3	44	1	1	2	7	5	1	17	61
Arnold,																
Alexandria,	Goff, Westmoreland,	1	100	10	6	14	7	138	1	4	2	24	9	2	42	180
Carbon,	Greensburg, Westmoreland,	1	111	8	4	16	.....	140	1	3	3	18	13	1	35	175
Claridge,	Claridge, Westmoreland,	1	140	8	4	14	5	172	.....	2	.....	.....	7	1	10	182
Calumet,	Calumet, Westmoreland,	1	109	6	21	13	5	146	1	4	4	80	20	2	111	257
Denmark,	Claridge, Westmoreland,	1	136	16	8	10	6	167	.....	2	3	.....	7	1	14	181
Derry shaft,	Bradenville, Westmoreland,	1	110	.....	9	15	8	143	1	2	4	56	6	3	72	215
Duquesne,	Wilkinsburg, Allegheny,	1	120	11	5	8	4	149	1	2	2	.....	12	1	18	167
Export,	Export, Westmoreland,	1	430	11	12	18	12	484	1	3	3	.....	25	2	34	518
Frankstown,																
Greensburg No. 1,	Greensburg, Westmoreland,	1	74	7	2	9	3	96	1	3	.....	.....	9	1	16	112
Greensburg No. 2,	Greensburg, Westmoreland,	1	28	1	2	2	.....	34	.....	.....	.....	.....	2	1	5	39
Graff,	Blairsville, Indiana,	1	18	.....	1	2	.....	22	.....	.....	.....	.....	.....	1	1	23
Graceton Nos. 1 and 2,	Graceton, Indiana,	1	40	.....	3	3	3	50	2	2	2	40	6	2	54	104
Hostetter,	Hostetter, Westmoreland,	1	156	.....	9	13	6	185	1	3	4	92	14	2	118	303
Hempfield,	Greensburg, Westmoreland,	1	90	12	5	11	2	121	1	3	4	.....	13	1	22	143
Hecla No. 1 shaft,	South West, Westmoreland,	1	97	1	12	18	9	138	2	4	6	62	9	3	86	224
Hecla No. 2 shaft,	Tranger, Westmoreland,	1	119	2	10	15	10	157	2	4	5	82	15	3	111	268
Hampton,	Wilkinsburg, Allegheny,	1	71	6	3	5	4	90	1	2	2	.....	6	2	13	103
Isabella Furnace,	Cokeville, Westmoreland,	1	94	10	11	16	2	134	1	2	2	49	24	2	81	225
Jamison,	Donohoe, Westmoreland,	1	70	1	5	6	2	85	1	2	3	18	6	1	31	116
Lucesco,	Lucesco, Westmoreland,	1	33	1	.....	2	.....	37	.....	.....	.....	.....	.....	1	1	38
Lockport,	Lockport, Westmoreland,	1	1	.....	.....	1	.....	3	.....	.....	.....	2	1	1	4	7
Larimer No. 4,	Larimer, Westmoreland,	1	373	32	19	16	15	446	1	3	3	.....	23	2	32	478
Latrobe Coal Works,	Latrobe, Westmoreland,	1	133	4	5	12	1	146	2	4	4	30	10	2	51	197

Loyalhanna No. 2 shaft,	Loyalhanna Westmoreland,							2	4	3	23	10	4	46	305
Loyalhanna No. 1 shaft,	Loyalhanna Westmoreland,	1	200	6	17	24	11	259							
Millwood shaft,	Millwood, Westmoreland,	1	100	2	16	11	4	134	.....	3	3	.....	14	1	21	155
M. Saxman,	Latrobe, Westmoreland,	1	45	3	2	7	1	59	1	1	2	18	8	2	32	91
Madison,	Darragh, Westmoreland,	1	174	11	5	13	7	211	1	3	3	.....	14	4	25	236
Mammoth Nos. 1 and 2,	Mammoth, Westmoreland,	2	213	2	18	30	15	280	4	8	9	125	30	3	179	459
Monastery slope,	Latrobe, Westmoreland,	1	55	5	7	9	4	81	2	2	8	.....	7	2	21	102
Maher Nos. 1 and 2,	Blairsville, Indiana,	1	23	.....	.....	2	.....	26	.....	.....	.....	.....	.....	1	1	27
No. 1 "A" and "B" shaft,	Mt. Pleasant, Westmoreland,	2	270	2	39	24	6	343	2	6	16	240	30	5	299	642
No. 2 slope,	Mt. Pleasant, Westmoreland,	1	100	5	8	13	1	128	1	2	3	83	20	2	111	239
No. 3 shaft,	Tarr's, Westmoreland,	1	90	2	12	14	4	123	1	3	6	67	12	2	91	214
No. 4 drift,	Alverton, Westmoreland,	1	58	2	5	6	.....	72	1	2	4	51	8	2	68	140
Ocean No. 1 shaft,	Herminie, Westmoreland,	1	190	15	32	16	5	259	1	4	4	.....	16	3	28	287
Oakhill No. 4,	Turtle Creek, Allegheny,	1	290	16	8	24	9	348	1	2	4	.....	34	3	44	392
Ocean,	Wilkinsburg, Allegheny,	1	6	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	1	1	8
Plum Creek,	Negley, Allegheny,	2	227	16	7	12	6	270	.....	3	2	.....	29	3	37	307
Pleasant Valley,	Harrison City, Westmoreland,	1	80	1	3	6	1	92	.....	3	.....	.....	4	.....	7	99
Penn Manor shaft,	Manor, Westmoreland,	1	75	3	4	4	.....	87	.....	1	3	.....	7	1	12	99
Pandora shaft,	Loyalhanna, Westmoreland,	1	115	4	6	6	3	135	.....	2	3	.....	7	.....	12	147
Penn Gas No. 1 shaft,	Irwin, Westmoreland,	1	204	2	16	25	7	255	1	3	4	.....	19	.....	27	282
Penn Gas No. 2 shaft,	Irwin, Westmoreland,	1	227	8	12	25	5	278	1	5	4	.....	23	.....	33	311
Penn Gas Coal Run,	Irwin, Westmoreland,	1	79	.....	5	8	2	95	1	3	.....	.....	4	3	11	106
Penn Gas No. 4,	Sewickley, Westmoreland,	1	149	.....	13	18	1	182	1	3	3	.....	19	3	29	211
Strickler,	South West, Westmoreland,	1	50	.....	3	5	1	60	1	2	2	.....	4	2	11	71
S. H. Smith,	Latrobe, Westmoreland,	1	26	1	.....	2	1	31	.....	.....	.....	.....	1	.....	1	32
Standard slope,	Mt. Pleasant, Westmoreland,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Standard No. 2 shaft,	Mt. Pleasant, Westmoreland,	2	353	6	41	33	20	455	.....	9	11	235	69	4	328	783
Saint Clair,	Bradenville, Westmoreland,	1	49	.....	3	6	5	64	1	2	4	12	17	2	38	102
Spring Hill No. 2,	Wall's, Allegheny,	1	62	6	1	6	1	77	2	1	2	.....	6	2	13	90
Smiths,	Blairsville, Indiana,	1	25	.....	1	2	.....	29	.....	.....	.....	.....	.....	1	1	30
Sandy Creek,	White Ash, Allegheny,	1	200	30	6	14	1	252	.....	3	4	.....	41	2	50	302
Turner's,	Blairsville, Indiana,	1	20	.....	.....	2	.....	23	.....	.....	.....	.....	.....	1	1	24
United No. 1 shaft,	United, Westmoreland,	1	120	8	14	20	7	170	1	4	6	40	24	2	77	247
United No. 2,	Feree, Westmoreland,	1	138	2	18	15	7	181	1	6	5	70	15	2	99	280
United No. 3,	Mutual, Westmoreland,	.....	5	.....	1	1	.....	7	.....	.....	.....	.....	.....	1	1	8
Whitney,	Whitney, Westmoreland,	1	145	.....	11	13	6	176	1	4	4	90	15	2	116	292
Westmoreland shaft,	Wilkinsburg Allegheny,	1	282	12	18	18	10	341	1	4	8	.....	18	2	33	374
Weinman,	Riddle, Westmoreland,	.....	8	.....	.....	1	.....	9	.....	.....	.....	.....	.....	1	1	10
Westmoreland Car Shops,	Irwin, Westmoreland,	.....	.....	.....	.....	.....	.....	.....	1	19	1	.....	23	.....	44	44
Total,		63	7,198	324	514	685	260	9,044	51	181	202	1,609	796	112	2,951	11,995

TABLE NO. 4.—*List of fatal accidents that occurred in and about the mines of the Second Bituminous Mine District for the year ending December 31, 1895.*

Date of Accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
1894. Oct. 23,	John Batusick,	Miner,	33	1	4	Carbon,	Westmoreland,	Back broken and otherwise severely injured by a fall of slate. The mine foreman had been in the place a short time before the accident, and had ordered him not to go to the lower end of the rib, as it was not safe, but he did not heed this order and was injured through his own wilfulness; he was taken to the Mercy Hospital and died there on March 7, 1895.
1895. Jan. 2	William Denner,	Miner,	22	S.		Carbon,	Westmoreland,	Was fatally injured by a fall of slate and died in two hours after the accident; his brother was working with him at the time and he had told him that the slate was loose, but he did not heed the warning and so he lost his life by his own carelessness. He had worked in this mine for five years.
17,	Gidcomo Carmunati,	Miner,	40	S.		Duquesne,	Allegheny,	Was instantly killed by a fall of slate. There was no post set under the slate, and five tons of it fell on him; from the evidence given before the coroner's jury, it seemed that the man came to his death through gross carelessness.

Feb.	25,	Stephen Doyle, ...	Driver, ...	27	S.	....	Hecla No. 2 shaft, ...	Westmoreland, ...	Was fatally injured by being caught between two wagons, and died on the 11th of March. Fast driving was the cause of the accident; the driver who had gone in ahead of him had left a wagon on the road; he ran into this wagon with such force that he had no chance to save himself. He acknowledged before he died that he was to blame for the accident.
Mar.	20,	John Mosar, ...	Miner, ...	54	S.	....	Standard No. 2 shaft, ...	Westmoreland, ...	These men were killed by the same fall of slate, several tons having fallen on them. There was no one present when the accident happened, but from the testimony of the two men who worked next room to them, they were working under a large quantity of loose slate; they heard them setting a post just before the slate fell. They went to them at once and found them dead under the slate. There is no doubt but what these two men lost their lives by being too careless and indifferent about what they were doing.
	20,	Joseph Kugler, ...	Miner, ...	40	1	3	Standard No. 2 shaft, ...	Westmoreland, ...	
	26,	Clark Eckenro, ...	Boss driver, ...	29	1	4	Millwood shaft, ...	Westmoreland, ...	Was instantly killed by being kicked by a vicious mule. There was no one present when the accident happened, but from the testimony of certain witnesses, he had to take out surags at a certain point in the heading, but he lost his light and the trip ran past this place before he could stop it. After the trip was stopped he went to the mule in the dark and the animal kicked him on the temple.
Apr.	5,	William Rhoads, ...	Driver, ...	24	1	1	St. Clair, ...	Westmoreland, ...	Was instantly killed by being caught between a wagon and a post, as he was taking an empty wagon into the mine. The trapper boy was riding on the hind end of the wagon; he stated that Rhoads was driving very fast; notwithstanding that he had been warned not to do so by the boss driver.
	9,	James Muldoon, ...	Miner, ...	33	1	4	Larimer No. 4, ...	Westmoreland, ...	Was instantly killed by a fall of rock as he and another man were trimming the sides after blasting the roof down. A witness stated that he had notified Muldoon a few minutes before the accident that the rock was loose, and that he had sounded it; he said no more to him, as he considered him a practical man, but thought that he lost his life by not taking proper care.

TABLE No. 4.—*Continued.*

Date of Accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Apr.	20, John Ballsea, ...	Miner, ...	37	1	3	No. 1, "B" shaft, ...	Westmoreland, ...	Was instantly killed by being run over by a trip of wagons on the dilly road. This was not a traveling road and he had no business there; he was a green hand and had only been in the mine a few days. There were five other men with him when the accident occurred who had been working in the mine for some time, and knew better than he did that they were forbidden to travel this road, but it was a shorter distance to their work, and they took the risk, which resulted in death to this man.
	26, Thomas Waters, ...	Driver, ...	22	S.	....	Standard No. 2 shaft, ...	Westmoreland, ...	Was instantly killed by being caught between a wagon and rib, as he was bringing a full trip out. There was no one present when the accident occurred, but from the evidence that I could gather from different parties, it seemed that he had tried to get past the trip in a narrow place and was caught where there was only three inches between the wagon and rib.
May	4, James Fyfe, ...	Miner, ...	26	1	2	Madison, ...	Westmoreland, ...	Was instantly killed by a fall of slate as he was knocking coal. His father was working with him at the time of the accident, and he stated that he was only a few feet away from him when he was struck. He fell into his father's arms and spoke once and died; the father stated that it was an unavoidable accident.

	17.	Gustave Lewis,	Driver,	21	S		Plum Creek,	Allegheny,	Was instantly killed by being run over by a full wagon as he was coming down the heading with his trip. There was no one present when the accident occurred, so there was no evidence produced to show how he fell as the road was good at this place. Robert Campbell testified that Lewis was subject to fits of dizziness; this will perhaps account for the accident.
	20.	John J. Dailey,	Miner,	19	S.		Export,	Westmoreland,	Back broken by being caught by a fall of slate; he lingered at home over two months, and on August 7 he was taken to the West Penn Hospital. On November 12, Dr. McCann removed the vertebrae that was crushed and pressed on the spinal cord; he seemed to be getting along all right after the operation, but he had a relapse and died on December 8.
	21.	Jacob Kobannic,	Miner,	29	1	2	No. 1, "A" shaft,	Westmoreland,	Was instantly killed by being caught by a fall of roof. There was another man working with him at the time of the accident; the mine foreman and roadman had been with them a short time before, and had told them to set some posts; the roadman stated that he had set one post for them, and if he had not done so, both would have been killed.
June	6.	George Tweedy,	Miner,	33	1		Mammoth,	Westmoreland,	Was instantly killed by a fall of slate as he was taking out posts in a rib. His brother-in-law was working with him at the time of the accident, and he stated that he had told him not to go back into the gob for the post as the place was working, and was not safe, but he did not heed this warning.
	8.	Joseph Giron,	Miner,	19	S		Ocean No. 1 shaft,	Westmoreland,	Was fatally injured by a fall of slate as he was driving a wedge in the coal; he tried to get away, but was struck on the head and his skull was fractured. The back of his head was also bruised when he fell on the floor; he was taken to the West Penn Hospital and died there in six days after the accident.

TABLE No. 4.—*Continued.*

Date of Accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location—County	Nature and Cause of Accident.
June 26,	George Shoback, ...	Miner, ...	20	S.	....	No. 1, "B" shaft, ...	Westmoreland, ...	Was instantly killed by being caught between cage and timber in the shaft. He with some others were standing at the shaft bottom near the cage; George Parfitt, the cager, told them to stand back out of the road, but just as he was signaling to hoist, this man jumped past him on to the cage and was killed.
July 29,	Henry Thomas, ...	Miner, ...	15	....	....	Penn Gas No. 4, ...	Westmoreland, ...	Was instantly killed by a fall of coal; his father was with him at the time of the accident and he set the little fellow to tamp a hole in the bottom coal while he was knocking the coal down; there was about a ton or more of coal fell, killing the boy instantly and severely injuring his father; it was impossible for the little fellow to escape from where he stood; I never knew such carelessness in all my life.
31,	Henry Rinklemyer, ...	Driver, ...	19	S.	....	Westmoreland shaft, ...	Westmoreland, ...	His foot was severely injured by being caught between the wagons; he was dragged along between the wagons for quite a distance. His foot was amputated and he died from the shock in a few days.
Aug 13,	John Donahue, ...	Miner, ...	27	S.	....	Pleasant Valley, ...	Westmoreland, ...	Was fatally injured by being struck on the stomach by a post and died in twenty-four hours after the accident. George Miller was working with him at the time of the accident, and he testified that he was standing close to Donahue when he was knocking the post out; he tried to get away but was caught, with the above result.

*Boy.

	16.	Michael McLaughlin, ...	Miner, ...	38	1	....	Westmoreland shaft.	Westmoreland, ...	Was instantly killed by a fall of slate as he was sitting down "bearing in." After a careful examination of the place I found that the room was well posted and that the piece of slate that killed him fell from between the posts; when found by George Smith his neck was broken and he had been dead for some time, as his body was cold.
	30.	George Furick.	Miner, ...	38	1	1	Hostetter.	Westmoreland, ...	Was instantly killed by a fall of roof coal as he was setting a post. There were two men working with him at the time of the accident, and they testified that he had his back towards the gob when he was setting the post, and there was more than three tons of roof fell on him, covering him, and it took three hours to get his body out from under the fall.
Sept.	19.	Ignac Kulek.	Miner, ...	32	1	2	Export, ...	Westmoreland, ...	Knee cap was dislocated by being struck by a piece of slate; I happened to be on a visit to the mine on that day, and it seemed to me that the accident was so trifling, that no one seemed to take much notice of it, but he died in two hours after. The doctor testified that he died from heart trouble.
Oct.	11.	Henry Otto, ...	Driver, ...	19	S.	....	Calumet.	Westmoreland, ...	Sustained a fracture of the spinal cord by being caught between a full wagon and the roof; he was taken to the West Penn Hospital and died in fifteen hours after reaching it. Theodore Smith, a roadman, was near him when the accident happened; he testified that he had told Otto not to get on top of the wagon as the roof was low at that place, but he did not heed the warning and death was the result of his disobedience.
	15.	Nicholas Baldrof.	Miner, ...	46	W.	2	Plum Creek.	Allegheny, ...	Was fatally injured by a fall of slate and died in six hours after the accident. His 16-year-old son was working with him at the time and the boy testified before the coroner's jury that his father was on his knees knocking coal when the slate fell on him. There were 500 pounds of slate fell and broke his back in two places; some of his ribs were broken also.

Table No 4.—*Continued.*

Date of Accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Oct. 14.	John Wozel,	Miner,	56	1	....	Denmark,	Westmoreland,	Was instantly killed by being caught by a fall of slate. Henry Frethie was working with him at the time of the accident and he testified before the coroner that he had told Wozel not to go under the slate, as it was not safe; but go he did to knock a post out, when about three tons and a half of slate fell on him, crushing him into a shapeless mass.
Nov. 6.	Eugene Houser,	Miner,	18	S.	....	Hecla No. 2 shaft,	Westmoreland,	Was instantly killed by being caught by a fall of "horse-back;" there was no one present when the accident occurred. The fire boss in making his second visit about 7 A. M., discovered his body under the slate. On making an examination of the room, I found that it was well posted, and that this horse-back had fallen between the posts, and it seemed to me to be an unavoidable accident.
21.	Charles Eckhart,	Miner,	33	1	5	Sandy Creek,	Allegheny,	Was instantly killed by being caught by a fall of slate as he was knocking coal. There were several miners working near him at the time of the accident, and they testified before the coroner's jury that they heard him sledging and also heard the slate falling; they went to his assistance at once and found him dead under the slate. On my examination I found that the slate was very rotten and full of water slips, which needed careful watching.

Dec.	12,	Henry Fisher, ...	Machinist, ...	37	1	5	Westmoreland shaft, ...	Westmoreland, ...	Was fatally injured by being struck on the abdomen by a pinch bar as he was trying to start the fly-wheel of the air compresser; he had not turned the steam off of the engine and as soon as the engine got off the center, it went off with such force that he was knocked to the floor by the bar, causing his death in three days after.
	17,	James Leclase, ...	Miner, ...	33	....	....	Larimer No. 4, ...	Westmoreland, ...	Was instantly killed by a fall of slate as he was cleaning a place to set a slate post. On the evening before he had put a shot in the coal, and the coal in falling knocked the slate posts out, and he was trying to set them so as to keep the slate from falling on the coal when he was killed. The miner working in the next room heard the slate fall and he ran at once to assist him, but when he got there he found him dead under the slate.
Nov.	28,	John Demballa, ...	Miner, ...	44	1	3	No. 1, "B" shaft, ...	Westmoreland, ...	Was instantly killed by being caught under a fall of roof; there was a man holding a light for him at the time of the accident, and he testified before the coroner that Demballa was knocking post out in the rib, and was caught by a large fall of roof. it took three hours work to get the body out from under the fall.

TABLE NO 5.—*List of non-fatal accidents that occurred in and about the mines of the Second Bituminous Mine District for the year ending December 31, 1895.*

Date of Accident		Name of Person.	Occupation.	Age.	Married.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan.	2.	Andrew Cuningham, ...	Miner, ...	18	S.	Oak Hill No. 4, ...	Allegheny, ...	Toes crushed by a fall of slate, necessitating amputation.
	2.	Antonio Tonone, ...	Miner, ...	27	S.	Oak Hill No. 4.	Allegheny, ...	Right foot badly crushed by a fall of slate, necessitating amputation.
	8.	Oscar Johnson, ...	Miner, ...	20	S.	Penn shaft No. 2, ...	Westmoreland, ...	Hand crushed by a fall of slate.
	8.	Fred. Stars, ...	Miner, ...	23	M.	Penn shaft No. 2, ...	Westmoreland, ...	Hand crushed by a fall of slate.
	11.	Oliver McKlvein, ...	Driver, ...	28	M.	Ocean No. 1 shaft, ...	Westmoreland, ...	Leg broken as he was riding out between wagons.
	17.	John Thompson, ...	Miner, ...	19	S.	Sandy Creek, ...	Allegheny, ...	Chest injured by a fall of slate.
	18.	Monry Altman, ...	Miner, ...	19	S.	Arona, ...	Westmoreland, ...	Thigh broken in two places by a fall of slate.
	18.	Michal Fabian, ...	Driver, ...	38	M.	United No. 2, ...	Westmoreland, ...	Arm broken in two places, also two ribs broken while riding out between wagons.
	19.	William McCracken, ...	Driver, ...	20	S.	No. 1, "B" shaft, ...	Westmoreland, ...	Leg bruised by falling in front of wagons.
	23.	Thomas Fagan, ...	Miner, ...	14	B.	Arona, ...	Westmoreland, ...	Leg broken by a fall of slate.
Feb.	1.	Giuseppe Boerio, ...	Miner, ...	47	M.	Millwood, ...	Westmoreland, ...	Both legs bruised by being caught between wagons.
	1.	John Solawsky, ...	Miner, ...	28	S.	Ocean No. 1 shaft, ...	Westmoreland, ...	Leg broken by a fall of slate.
	14.	Frank McWilliams, ...	Miner, ...	44	S.	Sandy Creek, ...	Allegheny, ...	Two ribs fractured by a fall of roof coal.
	19.	Paul Domico, ...	Miner, ...	42	M.	Export, ...	Westmoreland, ...	Leg broken by a fall of slate.
	20.	Carlo Boerio, ...	Driver, ...	21	S.	Millwood, ...	Westmoreland, ...	Arm broken and two ribs fractured by falling in front of wagon.
	20.	Thomas Bertram, ...	Trapper boy, ..	14	B.	Hecla No. 2 shaft, ...	Westmoreland, ...	Collar bone fractured by being squeezed by a mule against the rib.
	23.	James Smith, ...	Miner, ...	17	S.	Penn Gas No. 2 shaft, ..	Westmoreland, ...	Face and head severely injured by a fall of slate.
Mar.	9.	James Guset, ...	Miner, ...	16	S.	Sandy Creek, ...	Allegheny, ...	These boys were burned by natural gas that had escaped from a pipe line that was buried three feet under the surface while they were going through a tunnel to their work.
	9.	Leonard Guset, ...	Miner, ...	16	S.	Sandy Creek, ...	Allegheny, ...	
	13.	Thomas Kehoe, ...	Miner, ...	16	B.	Alexandria, ...	Westmoreland, ...	Leg broken by a fall of slate.
	20.	Smith Hunker, ...	Road hand, ...	20	S.	Strickler, ...	Westmoreland, ...	Leg broken by being caught in front of truck loaded with rails.

	26,	David Smith,	Miner,	52	M.	St. Clair,	Westmoreland,		Thumb broken by a fall of coal.
Apr.	12,	Andrew McCelvy,	Driver,	24	M.	Penn Gas Coal Run,	Westmoreland,		Foot injured by being caught between wagons.
	16,	William Goodman,	Driver,	18	S.	Whitney,	Westmoreland,		Arm broken by being caught between wagons.
	19,	John Valek,	Miner,	28	S	Penn Gas No. 2 shaft,	Westmoreland,		Leg mashed by a fall of slate, necessitating amputation.
	26,	Samuel Harper,	Miner,	19	S.	Ocean No. 1 shaft,	Westmoreland,		Leg broken by a fall of roof coal.
May	1,	Swan Hackerson,	Miner,	42	M.	Penn Gas No. 2 shaft,	Westmoreland,		Leg broken by a fall of slate.
	9,	Peter Herman,	Miner,	46		Ocean No. 1 shaft,	Westmoreland,		Leg and collar bone broken by a fall of coal.
	22,	John McCoy,	Miner,	32	M	Export,	Westmoreland,		Toe taken off by a fall of coal.
	31,	John C. Smith,	Miner,	35	M.	S. H. Smith's,	Westmoreland,		Thumb mashed by a fall of coal.
June	13,	Henry Thorn,	Driver,	27	M.	Denmark,	Westmoreland,		Leg broken by being caught by wagons
	14,	John Dunlap,	Driver,	32	M.	S. H. Smith,	Westmoreland,		Thumb cut off by being caught by a wagon.
	27,	John Thomas,	Driver,	32	S.	United No. 2,	Westmoreland,		Arm broken by being caught between wagons.
July	5,	Frank Gruda,	Miner,	23	S.	Whitney,	Westmoreland,		Collar bone broken by falling between wagons.
	15,	Andrew Sweet,	Driver,	21	S.	Standard No. 2 shaft,	Westmoreland,		Jaw bone broken by being kicked by a mule.
	6,	Henry Sanders,	Trapper,	16	B.	Penn Gas No. 2 shaft,	Westmoreland,		Leg fractured by falling in front of a wagon.
	9,	Thomas Thompson,	Miner,	33	S.	Penn Gas No. 2 shaft,	Westmoreland,		Back injured by a fall of slate.
	30,	Zanone Pietro,	Miner,	17	S.	Millwood shaft,	Westmoreland,		Toes broken and knee dislocated by a fall of coal.
	31,	Steve Wilk,	Miner,	25	S.	Pleasant Valley,	Westmoreland,		Arm broken while helping the driver to couple a loaded trip of wagons.
Aug.	1,	Patrick Beatty,	Miner,	45	M.	Larimer No. 4,	Westmoreland,		Leg broken by a fall of slate.
	3,	Michael Washer,	Miner,	46	M	United No. 1 shaft,	Westmoreland,		Arm broken by a fall of slate.
	17,	Daniel Dooley,	Miner,	58	M.	Hempfield,	Westmoreland,		Collar bone broken by a fall of coal.
	26,	Myi Mecbulic,	Miner,	33	M.	Larimer No. 4,	Westmoreland,		Two of his fingers cut off by being caught between a wagon and a post.
Sept.	6,	Jacob Seward,	Miner,	49	M.	Oak Hill No. 4,	Allegheny,		Leg broken by being caught between the bumpers of wagons.
	28,	Steve Matula,	Miner,	25	S.	United No. 2,	Westmoreland,		Leg broken by a fall of slate.
Oct.	7,	Samuel Clayton,	Miner,	21	S.	Denmark,	Westmoreland,		Severely injured about the head and shoulders by a fall of coal.
	8,	William Gray,	Water hauler,	47	M.	Standard No. 2 shaft,	Westmoreland,		Two ribs broken by being caught between water wagon and rib.
	11,	Conia Mamkro,	Miner,	40	M.	South West No. 4,	Westmoreland,		Arm broken by being caught between wagon and rib.
	30,	August Johnson,	Miner,	53	M.	Penn Gas No. 2 shaft,	Westmoreland,		Leg broken by falling from a wagon.
Nov	9,	John Finnifrock,	Driver,	17	S.	United No. 2,	Westmoreland,		Two ribs broken by being caught between wagon and rib.
	14,	William Fisher,	Superintendent,	50	M.	Sandy Creek,	Allegheny,		Arm crushed by being caught between two railroad cars as he was dropping them down from the tipple.
	18,	Michael S. Kelly,	Miner,	57	M.	St. Clair,	Westmoreland,		Severely injured on head and back by a fall of roof coal.
	20,	Edward McNab,	Miner,	28	S.	Penn Gas No. 1 shaft,	Westmoreland,		Leg broken by being caught while drawing a post.
	26,	Hugh Black, Sr.,	Miner,	50	M	Hempfield mine,	Westmoreland,		Hip dislocated by a fall of coal.
Dec.	14,	Patrick King,	Miner,	39	S.	United No. 2,	Westmoreland,		Back injured by a fall of roof coal.

THIRD BITUMINOUS DISTRICT.

(ARMSTRONG, BUTLER, CLARION, INDIANA, JEFFERSON, LAWRENCE, MERCER, WESTMORELAND AND BEAVER COUNTIES.)

Mercer, Pa., March 12, 1896.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: I herewith submit my annual report as required by the 11th section of article X of the bituminous mining act, approved May 15, 1893, for the year ending December 31, 1895.

There were seven persons lost their lives in this district during the year, being a decrease of two in this class of accidents as compared with that of the year 1894. There is an increase, this year of eleven in the number of non-fatal accidents as compared with the year 1894. This is a more favorable showing as far as the number of deaths is concerned, yet it shows more favorably when we take into consideration that the coal tonnage has increased, this year, six hundred thousand tons over that of 1894.

At least two of those fatal accidents resulted from gross carelessness. Both Anthony Bowser and James Shering had been warned of their danger just previous to the accidents having occurred. Bowser had been advised by his partner the day previous to the accident not to attempt taking out the pillar of coal in the "gob" as he considered the roof was in too dangerous a condition to do so. Shering had been told by the mine foreman on the morning that he lost his life of the dangerous condition of the "top" coal in his room, and was advised to take it down, but in both instances the friendly counsel was not heeded.

The following table shows the number of fatal and non-fatal accidents and their causes:

Causes of Accidents for 1895.	Fatal.	Non fatal.	Widows.	Orphans.
By falls of roof,	3	5	.....	.....
By falls of coal,	1	9	.....	.....
By mine wagons,	2	5	.....	.....
By premature explosions of powder,	1	4	.....	.....
Total,	7	23	4	1

The following is a summary of the statistics as compiled from the official returns to this office from the operators of the district for the year:

Number of mines in the district,	81
Number of miners (men and boys),	4,954
Number of "day men" employed inside of the mines including mine foremen and trapper boys,	749
Number of "day men" employed outside of the mines,	579
Total number of employes,	6,282

Number of short tons of coal produced in 1895,	3,254,947
Increase of short tons of coal as compared with 1894,	613,827
Number of short tons of coal produced per fatal accident,	464,992+
Number of short tons produced per non-fatal accident,	141,519+
Total number of days the mines were in operation in 1895,	13,922
Average number of days worked at sixty-five of the mines,	207+

Some improvement has been experienced in the coal trade in the district this year, as compared with that of last year as is evident from the increased tonnage, although a large number of the mines of the district were not in operation more than one-half time, in fact. Fairbank, Foster, Apollo, Kittanning, Gosford, Monarch, Cherry Run and Shenango mines were not in operation at all during the year.

Where the mines are being operated reasonably steadily, their sanitary condition is all that could be desired; while at the mines where much broken time has been experienced, I find a disposition among the mine officials to neglect the small details which are always necessary to be attended to to insure efficient ventilation and good drainage. The mines generally are in a very satisfactory condition.

A detailed description of the mines is given, also the necessary tables, which give the general statistics of the district, etc., accompany this report.

All of which is respectfully submitted,

Yours very respectfully,

THOMAS K. ADAMS.

DESCRIPTION OF MINES.

Mines in Armstrong and Clarion Counties Situated on the Allegheny Valley Railroad.

There are ten mines in operation along this railroad, and four others (Gosford, Kittanning, Rimerton and Monarch) have been idle during the whole year. Two of these mines were in operation nearly full time during the year; six about one-half time, and the two others about one-third time. There have been no strikes in this region during the year and what idle time has occurred at these mines has been through lack of contracts.

Church Hill.—This mine when last examined by me on October 22, had just changed ownership; the Horner brothers having purchased the interests of McCollum and Greenlee of Oil City who had been operating the mine for a number of years. On this date the mine had been running only part of the day and the fire not being kept up in the furnace in the afternoon (at which time of the day my examination took place) the ventilation was not of sufficient volume for such a mine, as I measured only 3,300 cubic feet of air in circulation and it was nearly all lost through leakage before it reached the face of the workings. Otherwise the mine was in only fair condition.

The new company was making preparation for the building of a new ventilating furnace.

Mineral Ridge.—When this mine was last examined by me it was done between the hours of 4 and 6 o'clock p. m., consequently the furnace fire had been dampened and the current of air was not as strong as it would otherwise have been had the fire been in its usual condition, as is the case during the earlier parts of the day. I measured 3,600 cubic feet of air in circulation near the face of the workings. The drainage of the mine was splendid and its other general conditions good.

Eagle Mine.—At my last visit to this mine I examined it at about 7 o'clock a. m. A fire had not been kindled in the ventilating furnace but I found a fair natural current of air in circulation. A few more doors should have been erected to properly convey the ventilation to the face of the workings. As this is a comparatively new mine all that was needed to have it in a proper condition, was for the mine officials to have the details attended to. I measured near the face of most of the works 3,200 cubic feet of air in circulation. The drainage was good.

Catfish Run.—This mine was found to be in very fair condition generally. The ventilation was in ample volume which was very well distributed throughout the workings, except in No. 4 right butt

entry where I found three or four miners working in rooms ahead of the air current. I measured 10,500 cubic feet of air in circulation in the mine. Also the drainage of the mine was reasonably good.

Hardscrabble.—I measured about 10,000 cubic feet of air being distributed to the face of the works in two separate currents. The general condition of the mine both in regard to ventilation and drainage was very fair at my last visit.

Riverview.—I measured 17,860 cubic feet of air in circulation in this mine which was being well distributed to the face of the works, and was of sufficient volume for the proper ventilation of the mine. The drainage was fair, except in one of the west butt entries where quite a number of the rooms in it were under water owing to the seam dipping rapidly at that point. Taking the mine as a whole it was in very fair condition.

Pine Creek.—At the last visit to this mine it was not in operation on that day, but I examined the workings and found them in very safe condition. The drainage was good. A "second opening" has been provided during the year; an air shaft has been sunk and a new ventilating furnace is being erected.

Glen.—This mine was very poorly ventilated at the time of my last visit. There was a large quantity of air in circulation but it was not conveyed to the face of the workings. This mine is being worked on the single entry plan which necessitates the air current being conveyed through the rooms by closing the mouth of the rooms with doors, but owing to the roof squeezing in some of the butt entries, these doors had been squeezed out of their proper positions, hence all the air leaked at the doors before reaching the head of the entries. The men who were working ahead of the air current were ordered to stop work until such defect was remedied. The mine is perfectly dry.

The Mines Located on the Low Grade Division and the Sligo Branch of the Allegheny Valley Railroad.

There are still ten mines located in this division of the district. This was the case last year with the Cherry Run mine, and it remained idle nearly all of the present year. Keystone mine is about exhausted and is not now under the requirements of the mining law, as they are employing fewer than ten miners. The Fairmount Nos. 2 and 3, Oak Ridge, Star and Brier Ridge mines were operated very steadily during the year, while the others in this section experienced much idle time.

Brier Ridge.—At what is known as the "Old" opening I found that the air current was not kept near enough to the face of the butt entries and the mine officials were disposed to open out rooms ahead

of the air current. There was a large quantity of air in circulation but it was not properly taken care of. I called the mine foreman's attention to the defects in the ventilating arrangements. A new 7 foot diameter fan has been erected at this opening during the year. I measured about 18,000 cubic feet of air in circulation in the mine. The other conditions at this opening were reasonably good. At the "New" opening the drainage was defective but the pillars of the mine were being taken out preparatory to abandoning it. The ventilation was fair, having measured 6,600 cubic feet of air in circulation for the thirty men employed therein.

Acme.—This mine has been in operation only about one-half time during the year. At date of my last visit it had just started up after an idlesness of several months, and I did not find it in as good a condition as it would have been if it had been in operation steadily. The water had not all been pumped out of the mine and it was yet over some of the entry roads. I measured about 12,250 cubic feet of air in circulation which was being fairly well distributed to the inner workings of the mine.

Avondale.—A bad squeeze had overrun the main hauling ways of the mine and work had to be abandoned for some considerable time, but these passageways have been reopened lately and the mine is now being operated with a limited number of miners. This mine in the past has always been kept well up to the requirements of the law as regards ventilation and drainage, but owing to the difficulty which has been encountered, it is not in as good a condition as it would have been had the squeeze not taken place.

Oak Ridge.—This mine, as usual, is in first class condition generally. Drainage is well maintained while the total volume of air is sufficient for the proper ventilation of the workings. At the two openings I measured 49,000 cubic feet of air per minute in circulation.

During the year a new "drift" has been opened at which a fan six feet in diameter was erected. This mine has been equipped with an endless rope haulage system by which the coal is brought forward from the mouth of the drift to the top of the old inclined plane, a distance of over three thousand feet. The method employed to bring the train of mine wagons from the drift mouth to top of the inclined plane, is that the trips are hitched to a truck upon which a "grip" is constructed, the "grip" being tightened around the rope by means of a lever worked by the man on the truck who rides with the trips of loaded cars.

Fairmount Nos. 2 and 3.—These mines, considering the difficulties continuously met with from the excessive quantity of water which is being encountered from the upper coal seam, and from the "faulty"

character of the lower coal seam, have been kept reasonably well up to the requirements of the mining law.

I measured a total quantity of air, of 41,000 cubic feet per minute, in circulation which was being well distributed to the face of the workings in both mines. The drainage of the lower mine was excellent, and of the upper one reasonably good.

Some improvements have been made in these mines during the year, such as shortening, grading and draining the hauling roads, especially has this been the case in the Upper or No. 3 mine.

Star Nos. 5 and 6.—These two mines are in splendid condition both in regard to ventilation and drainage. No. 5 mine is opened on the Lower Freeport coal seam, and No. 6 on the Upper Freeport coal seam. A Clark ventilating fan six feet in diameter has been erected at No. 5 mine, and a ventilating furnace seven feet wide and six feet high has been built during the year. The total volume of air per minute produced from both of these fans was 37,000 cubic feet, which was being well distributed to the face of the workings.

A new haulage system has been arranged for bringing forward the coal from these two mines to the top of the old inclined plane. The mines are situated a distance of 3,800 feet apart with a ridge or hill midway between the mouth of the mines and the top of the plane, consequently, the haulage plant proper is placed on the top of the ridge. The empty mine wagons are brought up to the top of the hill from the top of the plane by the rope and engine, and are dropped from the top of the ridge to the mines by gravity, the train of cars taking the hauling rope with it. Then the loaded cars are hauled from the mines in the valley to top of the ridge and the trip of wagons dropped over the hill to the top of the inclined plane by gravity, the trip taking the rope with it. This haulage system works admirably.

Mines Situated at Reynoldsville, Jefferson County.

There are five mines situated in this region, one of which (Big Soldier Run) is the largest in Western Pennsylvania. These mines have not been operated nearly to their full capacity and have experienced much broken time from dull trade during the year.

Hamilton and Sherwood.—These mines were not in operation at the time of my last visit to this region, but at a previous visit Hamilton was in a very good condition both as regards ventilation and drainage, while Sherwood at that time could not be so favorably reported as far as the ventilation was concerned. A large "fault" had been encountered in this mine cutting off most of the coal seam in nearly all directions, thereby disarranging the plan of working, and owing to the uncertainty of advancing the workings any farther,

the air current had not been conveyed as near to the face of the entries as it should have been; but the officials promised to have this defect remedied at once.

Big Soldier Run.—This is a very extensive mine having about 750 men employed therein. A large tonnage (3,000 tons) is produced daily. One-half of it is produced by mining machines and the other half by pick miners.

The mine is in splendid condition both in regard to ventilation and drainage. I measured a volume of air in circulation of about 98,000 cubic feet per minute which was being well conveyed to all parts of the mine.

Sprague Mine.—I measured 26,000 cubic feet of air per minute in circulation in the workings of the "new" mine and 26,000 in the "old" mine, making a total volume in both places of 52,000 cubic feet. This volume was conveyed well up to the head of all the entries in three or four separate "splits." The drainage was reasonably good, consequently the general condition of the mine was well up to the requirements of the law.

Henry Bros. Mine.—I measured 10,000 cubic feet of air in circulation which was conveyed to the face of all the workings of the mine. This mine is about up to the requirements of the law in every particular, it is therefore in splendid condition.

Mines Situated in Lawrence and Beaver Counties.

There are sixteen mines situated in this division of the district, and they have been operated reasonably steadily during the year with one exception, the Darlington, a new mine which was in operation forty-two days only. Ten of these mines averaged a run of 236 days each, four of them averaged 183 days and the Rock Point mine which supplies the locomotives, on the Pittsburgh and Western railroad with coal had a run of 310 days. This is a better average time for these mines than they have experienced for the few previous years.

Cannelton Mine, which is a small concern, was not found in very good condition. The coal property upon which this mine has been opened is an old abandoned one which had been worked over many years ago, and it had in a sense been honeycombed leaving nothing for the present company to work but small blocks of coal and the pillars remaining from the old works. Under such conditions it is almost impossible to carry out a regular plan of work, however the ventilation and drainage has been considerably improved since my visit.

Butts Cannel Shaft.—This mine was in splendid condition in every particular and up to the requirements of the mining law. I meas-

ured about 20,600 cubic feet of air per minute in circulation well carried to the face of the works.

Sterling Mine was in very good condition both in regard to ventilation and drainage. I measured 21,000 cubic feet of air in circulation fairly well distributed throughout all of the workings.

State Line Mine was in splendid condition. All the requirements of the mining law were being complied with. I measured 16,500 cubic feet of air in circulation which was well distributed throughout the entire workings.

Beaver Falls and Clayton Mines were not in operation during my last visit to that region, but I found them in fair condition at one of my previous visits.

Baker.—There are two main openings to this mine. In what is known as the "old" mine there are only a few miners working in drawing the entry pillars. This part of the workings was in very fair condition. The greater number of the miners are working in the "new" opening. While this "new" opening was fairly well ventilated, yet the total volume of air was not quite sufficient. The workings as a whole were in reasonably good condition. I measured a total volume of air for both mines of 9,500 cubic feet per minute.

Beaver Mine when last examined was in splendid condition both in regard to ventilation and drainage.

Mining machines have been introduced into this mine during the year to do part of the mining. Whether they will prove a financial success or not has not yet been fully determined, although the manager has faith that they will prove satisfactory.

The Clinton Mine when last examined was in very good condition both in regard to ventilation and drainage. I measured about 7,700 cubic feet of air in circulation which was being well conveyed to the face of the workings.

In the Excelsior Mine I measured 12,600 cubic feet of air which was being well distributed throughout all of the workings. The mine is in good condition generally.

Mehard Mine.—This is a comparatively new mine and at the time of my last visit the company was making preparations to put in a new furnace with which to ventilate it properly. The ventilating shaft had already been sunk. The mine was not sufficiently ventilated at time of my visit, but since then this defect I am informed has been remedied.

Rock Point Mine is in very good condition both in regard to ventilation and drainage. I measured 10,800 cubic feet of air in circulation which was being well conducted to the face of the workings.

The Thompson Run Mine was well ventilated and reasonably well drained. I found 9,900 cubic feet of air in circulation which was well distributed throughout the different parts of the mine.

The Penn Mine was not in operation at time of my last visit, but at a previous examination it was not in as good a condition as it might have been had the small details been carefully attended to.

Connessing Mine, is a new operation situated on the Pittsburgh and Western railroad and operated by the Connessing Coal Company with J. Wylie, superintendent, and J. E. Brown, mine foreman. It is a drift opening and was found to be in very good condition. Since my visit a "second" opening has been provided.

Mines Situated Along the West Pennsylvania Railroad in Westmoreland and Armstrong Counties.

There were eleven mines in operation in this division of the district during the year. The average time worked at these was from one-half to three-fourths. The Apollo, Foster and Fairbank mines have remained idle since last year.

Gilpin and Haddon mines were in splendid condition in every particular at date of last examination and the requirements of the mining law were well complied with.

I measured in the Gilpin mine about 25,000 cubic feet of air in circulation with a sufficient volume of it conveyed to the face of the workings. Eight thousand one hundred cubic feet of air was being produced in the Haddon mine which was well distributed throughout the whole workings.

Avonmore mine at time of last visit was in splendid condition. There was a sufficient quantity of air in circulation throughout all parts of the mine, as I measured about 37,800 cubic feet per minute. A new ventilating furnace has been built in what is known as the "dip" workings, the dimensions of which is 7 feet wide, 7½ feet high, and the arch is 18 feet long. The workings of this mine are separated into two divisions and for each division there is a separate ventilating furnace.

At Pine Run mine I found 14,300 cubic feet of air in circulation which was being well conducted to all parts of the mine. The mine was in very good condition both in regard to ventilation and drainage.

Bagdad No. 3.—This mine will soon be finished. One division of the works where the greater number of the miners were working was in splendid condition while the old part of the workings were not in very good order. I measured 6,000 cubic feet of air in circulation.

Leechburg mine No. 4 has been in operation reasonably steadily during the year. At the time of my last visit I found it in excellent

condition both in regard to ventilation and drainage. I found in circulation in all parts of the mine 21,940 cubic feet of air per minute.

In the Beal mine I found an ample volume of air at the outlet but the distribution of it was somewhat defective. The drainage was very good. The total volume of air produced was about 10,800 cubic feet per minute.

The Kirkpatrick mine at the date of my last visit was found to be in very good condition generally. Volume of air in circulation, 9,400 cubic feet.

At the West Penn mine although there was a sufficient quantity of air being produced, it was nearly all lost before it reached the face of the entries through excessive leakage at the brattice cloth doors which had been hung at the mouth of the various rooms. Where such material is used for doors and where the mine is being worked by the single entry plan it is an impossibility to maintain efficient ventilation.

Bagdad mine No. 2 was in splendid condition. The ventilation was sufficient and the drainage very good. A small ventilating furnace has been built at this mine during the year.

Blackstone mine was in excellent condition and well up to the requirements of the mining law. The ventilation and drainage were very good. The quantity of air circulating throughout all parts of the mine was 13,900 cubic feet per minute.

Mines in Mercer and Butler Counties Situated on the Pittsburgh, Shenango and Lake Erie Railroad.

There are seventeen mines located in this division of the district, ten of which worked over one-half time, and the others from one-fourth to one-half time. This shortage in working time at these mines was caused by lack of trade. No labor troubles occurred here during the year.

Enterprise mine was in excellent condition at time of last visit. The ventilation and drainage were good.

Hallville mine has not been in operation for the last few months, but was in fair condition when last examined.

Keister mine was in operation about 53 days during the year, but when last examined it was found in good condition.

The Spears mine has not been in operation much more than one-fourth time during the year. This mine was not in very good condition at the time of my last examination. The air current was weak at the face of the works and the hauling roads were not in very good condition. These conditions seem to be the natural result where mines are operated a few days one month and remain idle the next.

Black Diamond mines Nos. 1 and 2.—No. 1 has been in operation about two-thirds time during the year. This mine was found in very good condition both in regard to drainage and ventilation. I measured about 16,340 cubic feet of air per minute being produced, which was being well conveyed to the face of the entries and other workings. Some improvements have been made lately, such as grading the hauling roads and building new stables for the mules.

No. 2 mine was idle for three and one-half months (from 1st of July to middle of October) for the lack of trade. I found the workings of this mine well ventilated and drained. I measured 11,600 cubic feet of air in circulation which was being well conducted to the face of the entries and other workings.

Chestnut Ridge mine was not in very good condition at the time of my last visit to it. The drainage and the details necessary to insure efficient ventilation had been neglected. The cause of this neglect, no doubt, was from the fact of this mine being about exhausted. The work being done there now consists only of the drawing of the entry pillars and room ribs.

Pardoe mine was not very well ventilated in a few of the butt entries, while in others the current was ample. This is a very difficult mine to ventilate and drain properly owing to the great irregularity in the lay of the coal seam. The total volume of air in circulation was about 11,220 cubic feet per minute. The mine was, prior to this year, operated by the Mercer Coal Company, but it has been under the control for the last year of the Filer brothers and has been operated very steadily for some time.

The Gomersal mine was in very fair condition at time of my last visit: I measured 6,800 cubic feet of air in circulation which was being reasonably well distributed to the face of the workings. This mine has not been in operation very steadily during the year.

Royle mine at date of my last visit was found to be in very good condition both in regard to ventilation and drainage. I measured 5,200 cubic feet of air in circulation which was nearly all conveyed to the face of the workings.

Lake Erie No. 1 was in only fair condition at the time of my last visit. I measured about 6,150 cubic feet of air in circulation which was fairly well distributed to the face of the workings. The drainage was very good.

Lake Erie No. 2 is a new opening and it has not been in operation very long and was only in the first stages of development. It is a drift opening which has been opened on a good coal property.

Keystone Nos. 1 and 2.—I found these two mines in very fair condition both in regard to ventilation and drainage. I measured in No. 1 mine 6,860 cubic feet of air in circulation, which was being

well distributed to the face of the workings. In No. 2 mine I measured 5,700 cubic feet of air in circulation which was being well distributed to the face of the workings. The drainage was good at both places.

Stoneboro No. 2.—This mine has been working only about one-half time during the year. During my last visit I did not find a very large quantity of air circulating throughout its inner workings, although there was a volume of 11,800 cubic feet per minute produced at the furnace. Much loss of air was caused through leakage before it reached the working places of the miners. The drainage was very fair for such a mine.

In Stoneboro No. 3.—I measured about 10,000 cubic feet of air per minute in circulation throughout the workings. In regard to ventilation this mine was in very fair condition, but I found the hauling roads wet and muddy at some points. This is a difficult mine to ventilate properly.

Carver mine is separated into two divisions, but both are ventilated by the same power. In the division known as the "old" mine, the pillars are being drawn, and this part will soon be exhausted. The ventilation and drainage was very fair in this division. The workings in the other division of the mine, known as the "new" mine, were very well ventilated and drained. For both divisions I measured a total quantity of air in circulation of about 9,500 cubic feet per minute.

A very convenient hoisting apparatus has been erected at the "new" shaft opening. The cage is constructed so that the coal is dumped from the car without its leaving the cage. The said apparatus works automatically and efficiently.

Ormsby mine was not in very good condition at the time of my last visit. Although there was a total volume of air in circulation of 15,400 cubic feet per minute, not much of this quantity reached the face of the workings. The details relative to the ventilation of the mine had been somewhat neglected, but a new mine foreman was engaged on the day I made my examination who promised to have the defects in the ventilation and drainage remedied at once.

Hill mine was found in reasonably fair condition. The ventilation was in fair volume and well distributed except in one butt entry where a few rooms had been opened in advance of the air current. I measured 5,040 cubic feet of air per minute in circulation. The mine is a small operation usually employing about forty miners.

TABLE NO. 1.—*Showing location, etc., of collieries in the Third Bituminous Mine District.*

Name of Colliery.	Name of Operator.	Location—County.	Name of Superintendent.	Postoffice Address.
Acme,	Acme Mining Company,	Clarion,	J. W. Hill,	East Brady.
Avonmore,	Avonmore Coal Company,	Armstrong,	L. W. Hicks,	Leechburg.
Avondale,	Avondale Mining and Manufacturing Co.	Clarion,	James Mitchell,	Rimersburg.
Butts,	Butts Cannel Coal Company,	Beaver,	George Gould,	East Palestine, Ohio.
Blackstone,	Lewis Coal Company,	Westmoreland,	W. S. Hicks,	Leechburg.
Big Soldier Run,	Bell, Lewis & Yates Coal Mining Co.,	Jefferson,	John H. Bell,	Reynoldsville.
Black Diamond No. 1,	Filer, Sutcliff & Co.,	Mercer,	Frank Filer,	Mercer.
Black Diamond No. 2,	Filer, Sutcliff & Co.,	Mercer,	Frank Filer,	Mercer.
Bagdad No. 1,	Bagdad Coal and Coke Company,	Westmoreland,	Alfred Hicks,	Leechburg.
Bagdad No. 2,	Bagdad Coal and Coke Company,	Westmoreland,	N. S. Hicks,	Leechburg.
Baker,	L. S. Hoyt,	Beaver,	J. D. Lowrie,	Hoytdale.
Beale,	J. G. Beale & Co.,	Armstrong,	George Knepshield,	Leechburg.
Beaver,	Beaver Coal and Coke Company,	Lawrence,	H. K. Hartsuff,	Hoytdale.
Brier Ridge,	C. N. Shipman & Co.,	Clarion,	G. H. Moore,	Rimersburg.
Beaver Falls,	James Clayton,	Beaver,	James Clayton,	Beaver Falls.
Chestnut Ridge,	Filer, Westerman & Co.,	Mercer,	Enoch Filer, Jr.,	Grove City.
Catfish Run,	Catfish Run Coal Company,	Clarion,	Charles J. Tighe,	Catfish.
Clayton,	W. F. Clayton,	Beaver,	W. F. Clayton,	Beaver Falls.
Carver,	Carver Coal Company,	Mercer,	Frank Filer,	Mercer.
Connessing,	Connessing Coal Company,	Beaver,	J. Wylie,	Frisco.
Cannelton,	Morgan Coal Company,	Beaver,	H. V. Sanor,	Cannelton.
Clinton,	Clinton Coal Company,	Lawrence,	A. W. Harbison,	Hoytdale.
Church Hill,	Church Hill Coal Company,	Clarion,	John McCollum,	205 Elm street, Oil City.
Diamond,	Thomas Mitchell & Sons,	Clarion,	George Mitchell,	Rimersburg.
Enterprise,	Peter Sherwin,	Butler,	Peter Sherwin,	Karns City.
Excelsior,	Wampum Run Coal Company,	Lawrence,	J. B. Williams,	Wampum.
Enterprise,	Enterprise Coal Company, Limited,	Mercer,	M. B. Hofius,	Grove City.
Eagle,	Eagle Coal and Mining Company,	Clarion,	Joseph Lehner,	East Brady.
Fairmount Nos. 2 and 3,	Fairmount Coal and Iron Company,	Armstrong,	S. Taylor Sheaffer,	New Bethlehem.
Gilpin,	Gilpin Coal Company,	Armstrong,	N. S. Hicks,	Leechburg.
Glen,	J. R. Smith,	Armstrong,	J. M. Foltz,	Manorville.
Gomersal,	Gomersal Coal Company, Limited,	Butler,	William Ferguson,	Gomersal.
Hallville,	Grove Coal Company,	Mercer,	D. D. Morris,	Grove City.
Haddon,	Haddon Coal Company,	Armstrong,	N. S. Hicks,	Leechburg.
Hardscrabble,	Brady's Bend Mining Company, Limited,	Clarion,	C. F. Hartwell,	Oil City.
Hill,	Hill Coal Company, Limited,	Mercer,	William Jenkins,	Jackson Center.
Henry Brothers,	Henry Brothers,	Jefferson,	L. L. Henry,	Rathmel.
Hamilton,	Bell, Lewis & Yates Coal Mining Co.,	Jefferson,	John H. Bell,	Reynoldsville.
Jewell,	C. A. Jewell,	Butler,	Thomas Windle,	Fleeger.
Keister,	George G. Stage,	Butler,	George G. Stage,	Greenville.
Keystone No. 1,	Turner Coal, Coke and Mining Company,	Butler,	John L. Turner,	Ferris.
Keystone No. 2,	Turner Coal, Coke and Mining Company,	Butler,	John L. Turner,	Ferris.
Keystone,	Keystone Coal and Mining Company,	Clarion,	George E. Henry,	Brady's Bend.
Kirkpatrick,	Kirkpatrick & Co., Limited	Armstrong,	S. T. Shoff,	Leechburg.

TABLE NO. 1.—*Continued.*

Name of Colliery.	Name of Operator.	Location—County.	Name of Superintendent.	Postoffice Address.
Leechburg No. 4,	Leechburg Coal and Coke Company,	Westmoreland,	Alfred Hicks,	Leechburg.
Lake Erie No. 1,	Lake Erie Coal Company,	Butler,	George Findley,	Hilliards.
Lake Erie No. 2,	F. A. Mizener,	Butler,	George Findley,	Hilliards.
Mehard,	Mehard Coal Company,	Lawrence,	Robert H. Mehard,	Wampum.
Mineral Ridge,	Mineral Ridge Coal Company,	Clarion,	C. W. H. Eicke,	West Monterey.
Mahoning,	Valley Coal and Mining Company,	Armstrong,	R. A. Steim,	Kittanning.
Oak Ridge,	Oak Ridge Coal and Mining Company,	Armstrong,	Henry Williams,	Oak Ridge Station.
Ormsby slope,	H. K. Wick,	Mercer,	F. W. Powers,	Youngstown, Ohio.
Ore Hill,	Ore Hill Coal and Land Company,	Armstrong,	R. A. Steim,	Kittanning.
Pine Run,	Pine Run Coal Company,	Westmoreland,	Alfred Hicks,	Leechburg.
Pine Creek,	Pine Creek Coal Company,	Armstrong,	J. L. Murray,	Mosgrove.
Penn,	Penn Coal Company,	Lawrence,	Edwin N. Ohl,	New Castle.
Pardee,	Filer Brothers,	Mercer,	Enoch L. Filer,	Grove City.
Riverview,	Riverview Coal and Mining Company,	Armstrong,	R. M. McKinney,	Latrobe.
Rock Point,	Rock Point Coal Company,	Lawrence,	William Brown,	Chewton.
Royle,	Royle Coal Company,	Butler,	R. E. Royle,	Hilliards.
Sprague,	Bell, Lewis & Yates Coal Mining Co.,	Jefferson,	John H. Bell,	Reynoldsville.
Stoneboro No. 2,	Mercer Coal and Iron Company,	Mercer,	Robert P. Cann,	Stoneboro.
Stoneboro No. 3,	Mercer Coal and Iron Company,	Mercer,	Robert P. Cann,	Stoneboro.
Shenango,				
Spears,	Pine Grove Coal Company,	Mercer,	James A. Spears,	Grove City.
Star Nos. 5 and 6,	Northwestern Coal and Iron Company,	Clarion,	S. Taylor Sheaffer,	New Bethlehem.
Sterling,	Sterling Coal Company,	Beaver,	George Gould,	East Palestine, Ohio.
State Line,	State Line Coal Company,	Beaver,	Hugh Laughlin,	East Palestine, Ohio.
Standard,	Peter Sherwin,	Butler,	Peter Sherwin,	Euclid.
Sherwood,	Bell & Lewis,	Jefferson,	John Reed,	DuBois.
Thompson Run,	Thompson Run Coal Company,	Beaver,	M. W. Ritchie,	Taylor's Ferry.
West Penn,	West Penn Coal and Coke Company,	Westmoreland,	David A. Kistler,	Leechburg.

Table No. 2.—*Gives the total number of tons of coal mined and shipped in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, etc., in the Third Bituminous Mining District, for the year ending December 31, 1895.*

Names of Collieries.	Location—County.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Number coke ovens.
Acme,	Clarion,	12,383	12,383	77	53	.....	.....	.....	1	5	.....	.....
Avonmore,	Armstrong,	55,000	55,000	209	114	1	.....	.....	.....	9	.....	.....
Avondale,	Clarion,	21,599	21,599	166	49	.....	.....	.....	.....	5	.....	.....
Butts,	Beaver,	18,350	18,350	175	47	.....	.....	190	1	2	.....	.....
Blackstone,	Westmoreland,	28,878	28,878	284	77	.....	.....	300	.....	5	.....	.....
Big Soldier,	Jefferson,	560,506	546,747	223	764	2	6	3,222	6	71	.....	100
Beaver,	Lawrence,	32,780	29,610	195	115	.....	1	413	3	11	1	.....
Beale,	Armstrong,	29,669	29,669	295	56	.....	.....	800	.....	3	.....	.....
Black Diamond No. 1,	Mercer,	96,100	96,670	220	152	.....	.....	295	6	12	.....	.....
Black Diamond No. 2,	Mercer,	28,741	28,741	120	104	.....	.....	107	6	6	.....	.....
Baker,	Beaver,	51,100	50,073	180	101	.....	1	.....	1	7	.....	.....
Brier Ridge,	Clarion,	93,457	93,457	226	154	.....	3	400	1	11	.....	.....
Bagdad No. 2,	Westmoreland,	8,290	8,290	192	24	.....	.....	162	.....	2	.....	.....
Bagdad No. 3,	Westmoreland,	24,900	24,900	256	38	.....	.....	250	.....	2	.....	.....
Beaver Falls,	Beaver,	2,345	2,345	254	7	.....	.....	2	.....	1	.....	2
Chestnut Ridge,	Mercer,	46,300	44,314	201	70	.....	2	95	5	6	.....	.....
Catfish Run,	Clarion,	21,725	21,697	200	48	.....	.....	85	.....	4	.....	.....
Clayton,	Beaver,	4,616	4,616	222	10	.....	.....	40	.....	.....	.....	.....
Carver,	Mercer,	78,700	76,785	267	125	.....	.....	420	5	10	.....	.....
Connessing,	Beaver,	8,500	8,500	247	45	.....	.....	50	.....	3	.....	.....
Cannelton,	Beaver,	22,946	22,876	275	30	.....	.....	117	.....	4	.....	.....
Clinton,	Lawrence,	19,000	19,000	218	69	.....	.....	.....	.....	6	.....	.....
Church Hill,	Clarion,	20,000	20,000	175	50	.....	.....	.....	.....	3	.....	.....
Diamond,	Clarion,	17,327	17,327	120	63	.....	1	.....	.....	5	.....	.....
Darlington	Beaver,	1,000	1,000	42	25	.....	.....	40	.....	2	.....	.....
Enterprise,	Butler,	12,094	12,094	211	18	.....	.....	150	.....	2	.....	.....

TABLE No. 2.—*Continued*

Names of Collieries.	Location—County.	Total production in tons of coal.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Number coke ovens.
Excelsior,	Lawrence,	56,076	55,826	217	95	.....	.....	500	.....	6	.....	.....
Enterprise,	Mercer,	14,000	13,700	200	65	.....	.....	100	2	3	.....	.....
Eagle,	Clarion,	26,906	26,806	240	52	.....	.....	.....	.....	.....	.....	.....
Fairmount Nos. 2 and 3	Armstrong,	250,578	247,958	264	390	.....	.....	2,800	3	27	.....	.....
Gilpin,	Armstrong,	38,000	38,000	225	59	.....	.....	.....	.....	3	.....	.....
Glen,	Armstrong,	32,804	32,804	288	54	.....	.....	245	.....	5	.....	.....
Gomersal,	Butler,	37,000	36,820	168	64	.....	.....	70	.....	4	.....	.....
Hallville,	Mercer,	37,675	37,675	142	92	.....	.....	244	.....	7	.....	.....
Haddon,	Armstrong,	20,989	20,929	241	54	.....	1	200	.....	4	.....	.....
Hardscrabble,	Clarion,	20,000	20,000	150	48	.....	.....	.....	.....	3	.....	.....
Hill,	Mercer,	26,304	26,304	220	50	.....	.....	.....	.....	3	.....	.....
Henry Brothers,	Jefferson,	35,534	35,108	175	61	.....	.....	281	.....	5	.....	.....
Hamilton,	Jefferson,	54,333	52,128	87	145	.....	.....	311	.....	16	.....	.....
Jewell,	Butler,	19,460	19,460	166	41	.....	.....	125	.....	3	.....	.....
Keister,	Butler,	6,252	6,200	53	45	.....	.....	15	.....	6	.....	.....
Keystone No. 1	Butler,	34,866	34,466	154	70	1	1	300	.....	9	.....	.....
Keystone No. 2	Butler,	15,907	15,907	125	35	.....	.....	100	.....	.....	.....	.....
Keystone,	Clarion,	10,440	10,440	123	24	2	.....	50	.....	2	.....	.....
Kirkpatrick,	Armstrong,	13,050	13,050	174	50	.....	.....	175	.....	2	.....	.....
Leechburg No. 4	Westmoreland,	40,428	40,728	250	82	.....	.....	250	.....	3	.....	.....
Lake Erie No. 1,	Butler,	27,509	27,509	208	48	.....	.....	240	.....	3	.....	.....
Lake Erie No. 2	Butler,	8,778	8,778	100	49	.....	.....	80	.....	2	.....	.....
Mehard,	Lawrence,	28,982	28,982	245	54	.....	.....	.....	.....	4	.....	.....
Mineral Ridge,	Clarion,	40,398	40,398	313	92	.....	.....	.....	.....	9	.....	.....
Mahoning,	Armstrong,	11,000	11,000	120	50	.....	.....	.....	.....	.....	.....	.....
Oak Ridge,	Armstrong,	112,451	112,451	198	194	.....	3	715	4	12	.....	.....
Ormsby slope,	Mercer,	15,961	15,711	60	90	.....	.....	25	3	6	.....	.....
Ore Hill,	Armstrong,	2,300	2,300	75	16	.....	.....	.....	.....	.....	.....	.....
Pine Run,	Westmoreland,	27,600	27,600	227	53	.....	.....	350	.....	.....	.....	.....
Pine Creek,	Armstrong,	11,643	11,643	145	28	.....	1	.....	.....	.....	.....	.....

Penn	Lawrence	18,515	3,515	255				50			6				
Pardee	Mercer	58,360	57,559	240	180		1	220			15	1			
Riverview	Armstrong	71,730	71,730	185	108		1		2		9				
Rock Point	Lawrence	35,246	35,246	70	102			33			7				
Royle	Butler	37,390	37,390	241	72			251			4				
Sprague	Jefferson	115,975	108,663	142	187			68			38				
Stoneboro No. 2	Mercer	48,310	46,105	241	123			185			17				
Stoneboro No. 3	Mercer	34,554	33,939	198	92		1	160			7				
Shenango	Mercer														
Spears	Mercer	10,000	10,000	100	53						4				
Star Nos. 5 and 6	Clarion	144,440	139,140	264	210			700		1	14				
Sterling	Beaver	50,978	50,978	210	90			500			8				
State Line	Beaver	68,428	68,428	200	162			1,020		3	6				
Standard	Butler	21,659	20,509	245	47		1			2	3				
Sherwood	Jefferson	37,884	37,884	182	63						2				
Thompson Run	Beaver	29,640	29,574	240	76						8				
West Penn	Westmoreland	20,000	20,000	210	35						3				
Total		3,254,947	3,195,343	13,922	6,211	7	23	18,249	60	98	2	102			

TABLE No. 3.—*Showing the number of each class of employes at each colliery in the Third Bituminous Mine District, during the year 1895.*

Names of Collieries.	Location—County.	Occupations of Persons Employed Inside.						Occupations of Persons Employed Outside.				
		Inside foreman or mine boss.	Miners.	All company men	Drivers and runners.	Door boys and helpers.	Total Inside	Blacksmiths and carpenters.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	Grand totals, inside and outside.
Acme	Clarion	1	39	3	4	1	48	1	4	1	6	54
Avonmore	Armstrong	1	95	3	6	2	107	1	6	1	8	115
Avondale	Clarion	1	39	1	4	.....	45	1	4	.....	5	50
Butts	Beaver	1	36	3	.....	.....	40	1	6	1	8	48
Blackstone	Westmoreland	1	63	1	5	1	71	1	4	2	7	78
Big Soldier	Jefferson	2	627	6	62	26	723	4	34	5	43	766
Beaver	Lawrence	1	90	6	5	.....	102	1	10	3	14	116
Beale	Armstrong	1	50	.....	2	.....	53	.....	3	1	4	57
Black Diamond No. 1	Mercer	1	120	5	10	3	139	2	10	2	14	153
Black Diamond No. 2	Mercer	.....	84	4	6	2	96	1	5	2	8	104
Baker	Beaver	1	82	.....	6	4	96	1	3	2	6	102
Brier Ridge	Clarion	1	114	2	8	2	147	1	7	.....	8	155
Bagdad No. 2	Westmoreland	1	19	1	2	.....	23	.....	1	1	2	25
Bagdad No. 3	Westmoreland	1	33	....	2	.....	36	.....	2	1	3	39
Beaver Falls	Beaver	1	6	.....	1	.....	8	.....	.....	.....	.....	8
Chestnut Ridge	Mercer	1	50	4	6	2	63	1	5	2	8	71
Catfish Run	Clarion	1	38	2	3	.....	44	1	3	1	5	49
Clayton	Beaver	1	8	1	.....	.....	10	.....	1	.....	1	11
Carver	Mercer	1	96	8	7	2	114	2	8	2	12	126
Connessing	Beaver	1	36	2	2	.....	41	1	3	1	5	46
Cannelton	Beaver	1	30	1	4	.....	36	.....	3	1	4	40
Clinton	Lawrence	1	55	2	6	.....	64	1	.....	3	6	70
Church Hill	Clarion	.....	40	2	3	.....	45	3	3	1	7	50
Darlington	Beaver	1	20	.....	2	.....	23	.....	2	1	3	26
Diamond	Clarion	1	52	1	3	.....	57	1	3	3	7	64
Enterprise	Butler	1	15	.....	1	.....	17	.....	.....	2	2	19
Excelsior	Lawrence	1	71	4	6	1	83	2	8	3	13	96

Enterprise,	Mercer	1	50	2	4	.....	57	1	6	2	9	65
Eagle,	Clarion,	1	43	.....	2	.....	46	1	4	2	7	53
Fairmount Nos. 2 and 3	Armstrong,	2	319	12	14	8	353	7	25	4	36	392
Gilpin,	Armstrong,	1	50	.....	3	.....	54	1	4	1	6	60
Glen,	Armstrong,	1	40	1	3	.....	47	1	7	2	8	55
Gomersal,	Butler,	1	53	1	1	1	59	1	3	2	6	65
* Hallville,	Mercer,	1	72	3	7	.....	83	1	6	3	10	93
Haddon,	Armstrong,	1	45	.....	3	.....	49	.....	4	2	6	55
Hardscrabble,	Clarion	1	40	1	3	.....	45	.....	3	1	4	49
Hill,	Mercer,	1	40	2	3	.....	46	1	3	1	5	51
Henry Brothers,	Jefferson	1	51	1	4	1	58	1	2	1	4	62
Hamilton,	Jefferson	1	121	2	12	3	139	2	5	.....	7	146
Jewell,	Butler	1	33	2	2	1	39	.....	2	1	3	42
Keister,	Butler	1	35	.....	5	.....	41	1	3	1	5	46
Keystone No. 1,	Butler,	1	51	4	7	.....	63	1	5	2	8	71
Keystone No. 2,	Butler,	1	30	.....	2	.....	33	1	2	.....	3	36
Keystone,	Clarion,	1	20	.....	1	.....	21	.....	2	1	3	24
Kirkpatrick,	Armstrong,	1	18	.....	2	.....	21	.....	.....	.....	.....	21
Leechburg No. 4,	Westmoreland	1	52	.....	3	.....	56	1	4	2	7	63
Lake Erie No. 1,	Butler,	1	39	3	3	1	47	1	.....	1	2	49
Lake Erie No. 2,	Butler,	1	45	1	2	.....	47	1	2	.....	3	50
Mehard,	Lawrence,	1	40	3	4	.....	48	1	4	2	7	55
Mineral Ridge,	Clarion,	1	73	3	6	2	85	2	5	1	8	93
Mahoning,	Armstrong,	1	40	3	3	.....	47	1	3	.....	4	51
Oak Ridge,	Armstrong,	1	145	4	11	5	166	3	24	2	29	195
Ormsby slope,	Mercer,	1	70	2	6	1	80	1	8	2	11	91
Ore Hill,	Armstrong,	1	12	2	1	.....	16	.....	1	.....	1	17
Pine Run,	Westmoreland,	1	44	1	3	.....	49	1	2	2	5	54
Pine Creek,	Armstrong,	1	13	4	1	.....	19	.....	5	1	6	25
Penn,	Lawrence,	1	50	4	6	.....	61	1	5	2	8	69
Pardoe,	Mercer,	1	106	6	10	.....	123	1	5	2	8	131
Riverview,	Armstrong,	1	85	2	7	2	97	1	9	2	12	109
Rock Point,	Lawrence	1	83	2	5	.....	91	2	8	2	12	103
Royle,	Butler,	1	60	3	4	.....	68	1	3	1	5	73
Sprague,	Jefferson	1	141	2	25	9	178	2	8	.....	10	188
Stoneboro No. 2,	Mercer,	1	82	12	14	.....	109	1	12	2	15	124
Stoneboro No. 3,	Mercer,	1	56	6	7	1	71	1	10	1	12	83
Shenango,	Mercer,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Spears,*	Mercer,	1	40	2	4	1	48	1	4	1	6	54
Star Nos. 5 and 6,	Clarion,	1	160	7	10	3	181	6	20	4	30	211
Sterling,	Beaver	1	78	1	2	.....	85	1	4	1	6	91
State Line,	Beaver	1	127	2	7	2	139	3	10	1	14	153
Standard,	Butler,	1	35	2	3	.....	41	1	5	1	7	48
Sherwood,	Jefferson,	1	55	1	2	.....	59	1	3	1	5	64
Thompson Run,	Beaver,	1	55	1	3	1	71	1	3	2	6	77
West Penn,	Westmoreland	1	30	.....	2	.....	33	.....	2	1	3	36
Total,	.....	71	4,954	173	417	88	5,703	81	493	705	579	6,282

* Approximated

TABLE NO. 4.—*List of fatal accidents that occurred in and about the mines of the Third Bituminous Mine District, for the year ending December 31, 1895.*

Date of accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Mar. 2.	George Blystone.	Miner.	67	Yes	....	Avonmore	Armstrong.	Was seriously injured by mine wagons; he lived a few weeks after the accident occurred; one of his legs having been so badly crushed as to necessitate its amputation, from the effects of which he did not recover. Blystone was walking into the mine and had gone a distance of about 44 feet from the mouth of the drift when he met a driver with a trip of cars, and as he was attempting to get out of the way he slipped on the ice, which had formed on the floor of the passageway, and was caught by the passing trip and rolled between the first and second mine wagons. He was an old man and was very deaf and could not hear the driver coming out with his trip of cars, neither could he see the cars nor driver coming, owing to a sharp curve being in the passageway near the point of meeting. It was not necessary, however, for the victim to enter the mine by the opening mentioned, as there was another traveling way provided.

	25.	Austin Taylor, ...	Miner.	 20	No ...	Standard.	Armstrong, ...	This young man was instantly killed by the rock from a fired shot in his room floor. He was blasting up the room floor with dynamite to make height for the mules and mine wagons in his room roadway, and Jay Blair was working in an adjacent room and doing similar work at that time; these two men lit their shots simultaneously and both retreated to the entry road until they would explode. One of the shots exploded and Taylor thought it was his, but Jay Blair told him not to go back to his room because the shot that went off was his. Taylor, however, was over confident and went back to his room in company with the boy, Kildoo, and they had reached a point a few feet from where the shot was, when it exploded with the above result. The boy, Kildoo, having been a few feet in the rear of Taylor was protected by him from the flying material and was practically uninjured.
May	7.	G. E. Hawk, ...	Miner.	 19	No	Keystone	Clarion.	These two accidents happened as near as could be ascertained, at about 2 o'clock P. M., on this date; G. E. Hawk was killed instantly and Harry Hawk was caught by the arm and leg, by the same large stone which fell from the roof upon G. E., and held there tightly until the next morning, when he was released by the workmen. Harry died shortly after he was taken home; he was conscious when found and related his experience of the dreadful night and also how the accident happened. There was no one in the mine but the two boys when the accident occurred, as the mine had not been in operation for several days prior to this, but they were in the mine making coal ready, as the mine was to be in operation the next day. The two boys were taking out an entry pillar and had fired a couple of shots in the coal that day and the bore holes having been bored near the top of the coal seam, the roof became badly shattered and failing to secure it properly, it fell upon them.
	7.	Harry Hawk, ...	Miner	 16	No	Keystone	Clarion.	

TABLE NO. 4.—*Continued.*

Date of accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
May 27,	James Shering, ...	Miner, ...	40	Yes	4	Keystone No. 1, ...	Butler, ...	Was fatally injured by a fall of top coal. He and John McBride were driving a room toward the outcrop of the coal seam, which made it (the coal) very soft; the coal seam was divided into two benches, being separated by a seam of clay from four to six inches thick. The prevailing mode of working this seam (which is about seven and one-half feet thick) is to mine it under the bench (which is about four feet thick) first, and leave a considerable area of the top coal up before taking it down. This was the condition of affairs that existed in Shering and McBride's room on the morning of the accident, as observed by the mine foreman when he made his visit to said place that morning, and who told Shering of the dangerous condition of the top coal, and advised him not to run further risk, but to take the coal down, but the unfortunate men failed to act on the advice given. Shering was loading the car with coal while McBride was knocking down some of the lower bench and throwing coal out to him, and while Shering was reaching under the top bench for the lump coal the top coal fell, completely burying him under the mass, killing him almost instantly. McBride, having been closer to the face of the lower bench, the top coal broke over him, thus saving his life, although one of his arms was broken in two places and his face, head and other parts of his body were considerably bruised.

July	1,	Anthony Bowser, ...	Miner, ...	36	Yes	5	Big Soldier Run, ... Jefferson	Was killed by a fall of top coal and slate. He was taking out a small block of coal which had been left in the "gob," when the accident happened; a small block of rib coal had been left back in the "gob," no doubt to steady the roof, and while he was attempting to take it out, the top coal and slate fell in, catching him between the end of the room pillar and the block of coal in the "gob." The block of coal which Bowser was attempting to take out was unimportant, but, of course, was easily mined, which, no doubt, induced him to run the great risk, as he knew of the dangerous condition of the roof and had been warned of the danger.
	6,	John Fleckner, ...	Driver, ...	48	Yes	4	Big Soldier Run ..... Jefferson	Was driving between two partings inside of the mine and drove a "string" of three mules, hauling six mine wagons on a trip. According to the evidence given at the investigation, it would seem that he had been walking backward, between the front car and the last mule, attempting to adjust the "banjo," or driver's iron seat, on the front end of the car, and from some cause he had fallen in front of the cars; however, I am inclined to the opinion that the iron seat had been attached to the front end of car in an insecure manner and in some way became disconnected, allowing the unfortunate man to fall off. The hauling road at the point where the accident happened was perfectly level and clean, and the entry was very wide; he was found under the bumper, with his body against the front wheels of front car, with one leg broken and his body otherwise bruised.

TABLE No. 5.—*List of non-fatal accidents that occurred in and about the mines of the Third Bituminous Mine District, for the year ending December 31, 1895.*

Date of accident.		Name of Person.	Occupation.	Age.	Married.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Feb.	25,	Poygnol Shiavine,	Miner,	30	Yes	Big Sodier Run,	Jefferson,	Was slightly burned by powder.
	25,	Loveto Shiavine,	Miner,	25	No	Big Sodier Run,	Jefferson,	Was burned by powder.
Apr	11,	John Frick,	Miner,	59	Yes	Riverview,	Armstrong,	Arm broken and a finger taken off his right hand by a fall of coal.
	20,	Joe Wiskoski,	Laborer,	30	No	Big Sodier Run,	Jefferson,	Leg bruised by a fall of coal.
	26,	Edward Benney,	Laborer,	18	No	Big Sodier Run,	Jefferson,	Three toes taken off by a mine wagon running over his foot.
May	27,	John McBride,	Miner,	46	Yes	Keystone No. 1,	Butler,	Arm broken by a fall of coal.
July	5,	Frederick Toy,	Miner,			Pine Creek,	Armstrong,	Leg broken by a fall of coal.
Nov.	4,	James Rider,	Miner,	16	No	Diamond,	Clarion,	Injured by a fall of roof slate.
Dec.	1,	John Freil,	Driver,	24	No	Big Sodier Run,	Jefferson,	Injured by mine wagons.
	12,	Richard Readycliff,	Miner,	62	Yes	Big Sodier Run,	Jefferson,	Collar bone broken by a fall of coal.
	17,	William Hall,	Miner,	40	Yes	Beaver,	Beaver,	Eyes burned by an ignited charge of powder.

FOURTH BITUMINOUS DISTRICT.

(McKEAN, POTTER, TIOGA, BRADFORD, LYCOMING, CLINTON, CAMERON AND ELK COUNTIES AND ALL THOSE MINES IN CLEARFIELD COUNTY ADJACENT TO THE LOW GRADE DIVISION OF THE ALLEGHENY VALLEY RAILROAD; ALSO THE MINES ADJACENT TO THE CLEARFIELD AND SUSQUEHANNA BRANCH OF THE PENNSYLVANIA RAILROAD; ALSO THE MINES ADJACENT TO THE BUFFALO, ROCHESTER AND PITTSBURG RAILROAD IN JEFFERSON AND CLEARFIELD COUNTIES.)

Blossburg, February 18, 1896.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: I herewith submit my annual report as Inspector of Mines for the Fourth Bituminous Coal District of Pennsylvania, for the year ending December 31, 1895, in compliance with the act of Assembly of May 15, 1893, together with statistical tables compiled from the operators reports returned to my office.

The returns show an aggregate increase of 997,755 tons or a little over twenty-three per cent. of production for the district, over that of the preceding year. This increase is due in some measure to more steady work throughout the district, but mainly to a large increase in production of the mines of Jefferson county. I submit no report of mines in Sullivan county for the reason that they have been classified with and added to the anthracite coal region. Four new fans have been erected during the year, making a total of twenty-seven now in operation in the district. The ventilation in general throughout the district, was found to be very good, and the drainage is much improved.

The number of fatal accidents have increased. Eight persons were instantly killed and six seriously injured, resulting in death soon after the accidents occurred. The number of deaths caused by falls of coal and roof was ten, the same number as reported for the previous year. The increase in fatalities being chargeable to mine cars and powder explosions.

The non-fatal accidents have also increased from falls of coal and roof and by mine cars. There were two persons injured by an explosion of mine gas in the Adrian mine in Jefferson county which is the first serious occurrence of the kind so far reported in the district. Indications point to an increased development of mine gas in both Jeffer-

son and Clearfield counties, as the mines become farther advanced under the heavy cover of the hills. This will be attended with corresponding danger to life from explosions, and will call for increased care and vigilance in the matter of the ventilation of such mines.

Respectfully submitted,

JAMES N. PATTERSON,
Inspector.

Mining Statistics.

Number of mines in district,	65
Number of tons produced,	5,294,351
Number of tons shipped,	4,410,508
Number of tons of coke manufactured,	306,198
Number of days worked,	7,308
Number of miners employed,	6,157
Number of persons employed inside,	1,078
Number of outside men,	1,343
Total inside and outside,	8,578
Number of horses and mules,	795
Number of mine locomotives,	24
Number of steam boilers,	95
Number of coke ovens reported,	1,468
Number of kegs of powder as per operators' report,	29,266
Number of fatal accidents,	14
Number of non-fatal accidents,	32
Number of tons produced per each fatal accident,	378,168
Number of tons produced per each non-fatal accident,	168,448

Classification of Fatal Accidents.

By falls of coal,	2
By falls of roof,	8
By powder explosions,	1
By mine cars,	3
Total,	14

Classifications of Non-fatal Accidents.

By falls of coal,	8
By falls of roof,	12
By powder explosions,	1
By mine cars,	9
By gas explosion,	2
Total,	32

DESCRIPTION OF MINES.

Bradford County Mines.

Long Valley Mines.—Mine No. 1 has been worked out and abandoned except for local domestic purposes.

Mine No. 2 is located about two miles east from mine No. 1 at Long Valley. The coal here is of the same vein as No. 1 mine but of a better quality. The vein is composed of two members separated by a rock parting. The bottom member varies from one to three feet in thickness and the upper member is about ten inches in thickness. The rock parting varies from twelve to fifteen inches in thickness. The coal operated by this company lies near the surface in three hills, separated by deep ravines; drift No. 2 enters the second or middle hill with a second opening about 65 feet from the first opening on which a five foot Clark fan is erected. This fan produces about 38,000 cubic feet of air per minute. About 600 feet from the mouth of No. 2 drift they have a double track haulage plane 1,700 feet in length, with a chute at the lower end for loading coal into railroad cars. They use a one inch steel rope on the plane. Drift No. 3 is 2,700 feet northwest from drift No. 2. It has a second opening on which is erected a five foot Clark fan. The coal from all three of these mines pass over the same plane to the railroad.

Clearfield County Mines.

Berwind Shaft Colliery.—Located at DuBois, owned and operated by Berwind-White Coal Mining Company. This shaft was first commenced in August, 1892, and after several attempts it was finally sunk to the coal in 1893.

Soon after it had reached this point, it was flooded by the breaking of one of the largest pumps. After several attempts had been made it was successfully drained and since that time has been running continually. No. 2 shaft at this time was sunk 62 feet, since then it has been sunk to 160 feet. At a depth of 150 feet a large flow of water was struck, when a permanent water ring was placed in the shaft. The work on this shaft is now progressing rapidly. The permanent boiler plant consists of six 100 horse power tubular boilers with a 24x36 inch twin motion hoisting engine. The pumping plant consists of two duplex compound condensing pumps of the Jeanesville pattern, with a capacity of 2,600 gallons per minute each, and one duplex compound condensing pump of the Snow pattern with a capacity of 2,600 gallons per minute: these pumps are all located at bottom of the shaft, where brick arches have been erected to protect them from any loose rock that might fall upon them. Both these shafts are lined with 12x12 inch white oak timbers backed by 2½

lagging. At the bottom of No. 1 shaft, solid brick masonry has been put in on which the lining rests. Both the north and south headings are arched with brick for a distance of 60 feet, and 40 feet, respectively, from the bottom of the main shaft. The present developments consist principally of driving headings amounting in the aggregate to about 12,000 feet in length. Since the company has been working the mines, only one fatal accident has occurred and one man was killed by a fall of rock. The mine is now ventilated by a large Norwalk compound air compressor 28x36 inches. There has been 25,000 tons of coal mined up to the present time. Of this 12,000 tons were consumed at the plant (1,600 tons monthly). They are pumping 7,000 gallons of water per minute from the mines. The head frames at top of main hoisting shaft are of steel and of the best in the district. The other machinery is all first class. Mine foreman is James Harvey, and J. A. Crist, superintendent.

Rochester Mine.—They have shortened the airways and thereby improved the ventilation very much. This change causes the air current to pass more closely to the face of the workings. The drainage was found to be good.

Sandy Lick mine has not been in operation during the year.

Karthaus mine is still confined to pillar work. Ventilation and drainage is good.

Brittanic mine has been operated only thirty-eight days during the early part of the year.

Williamsport Mines.—These mines have heretofore been ventilated by furnace power which has not been giving satisfactory results of late, owing mainly to the increased extent of the workings. They are arranging to erect a fan to supply the deficiency in ventilation.

Cataract Mines.—The ventilation is good and the drainage fair.

Helvetia Mines.—Mine No. 1 is working in only a small way, the principal workings being confined to mine No. 2 or slope. They have constructed two overcasts over the main slope and improved the traveling way during the year. The general condition of the mine is good.

Mount Carmel mine, located at Karthaus is a new mine opened during the year.

Winterburn mine, located at Winterburn has been opened during the year. They are arranging to use the electric haulage system.

Clinton County Mines.

Kettle Creek mines, were found in good condition both as to ventilation and drainage. They have put in two syphon pumps during the year.

Elk County Mines.

Shawmut Mines.—Few improvements have been made here during the year in the way of opening new drifts. Headings however are being driven quite rapidly and preparations for new work in the shape of rooms are being made. No. 2 extension which has been standing idle for the last five years has recently been driven to the outcrop. They have crossed the ravine (Phalen run) and opened a new drift on that side. The coal here is 3 feet 8 inches in thickness and of good quality. They have started another heading leading into the same field of coal, but in a different direction. This heading will lead nearer the chutes than the one above mentioned, and will enable them to maintain their usual yearly output.

Mead Run Mines.—Operated by the Shawmut Coal Company. Drift No. 1 was opened by the Northwestern Coal Company and operated by them until they came in contact with a rock fault and then it was abandoned. During the last year the Shawmut Company put down two drill holes with a diamond drill, one about 400 feet ahead of the furthermost workings in the mine, where they found the coal to be good and 3 feet 5 inches in thickness; the other hole was put down about 150 feet from the face of the heading where the coal was also found to be good and of the same thickness. A so-called "top seam" 3 feet in thickness overlies the bottom seam 12 feet, and they propose after extending the drift through the fault, to work or mine out both seams at the same time. At drift No. 2 they have made a second opening. They have also opened a new drift called No. 3 which is being driven to connect with drift No. 2. An air shaft and stack has been completed but the furnace is not built.

Noble Mines.—Operated by the Noble Coal Company were found in good condition.

Paine Mine.—Operated by Shawmut Coal Company, is nearly worked out and is in good condition.

Saint Mary's Mine.—Operated by the Saint Mary's Coal Company. They are arranging to open up an underlying seam of coal here, the upper or main seam being about exhausted.

Dagus Mines.—Were found in good condition both as to ventilation and drainage.

Hazel Dell Mine.—Was found in good condition.

Glen Fisher Mines.—Operations here have been suspended by reason of financial embarrassment.

Jefferson County Mines.

Adrian No. 2 or Slope Mine.—Operated by the Rochester and Pittsburg Coal and Iron Company. They have put in place a 25 foot Guibal fan and have widened the main air-course to the full

capacity of the fan, or 64 feet in cross sectional area. They have made new overcasts and have placed a large Blake pump with a 5 inch discharge near the eighth left heading, also a No. 7 Cameron pump and several smaller ones in other parts of the mine. They are laying 35 pound (T) rails in the main slope, and have started to drive a manway parallel to the narrows in the slope, so as to enable the miners to pass in and out of the mines without traveling over the haulage way of the slope. They have also commenced to widen and retimber the narrows (a part of the slope, which was made narrow or only wide enough for a single track when it was constructed, by reason of a soft roof). This will improve the ventilation, since it makes the outlet larger than the inlet. They have added four new horizontal tubular boilers of 100 horse power each and built an iron boiler house 55x74 feet over the boiler plant, which gives a boiler capacity of 800 horse power in this building. They have set in place a new 28x30 inch Norwalk air compressor, making four in all, and have built a brick compressor house 32x44 feet, also a filter and feed water heater with a capacity of over 1,000 horse power. They have also erected a new trestle 270 feet in height from the mouth of the slope to the tipple; and have rebuilt 60 coke ovens.

Walston Mine No. 1.—Operated by the same company, was found in fair condition, and mine No. 2 was found in good condition.

Walston No. 3 or Slope Mine.—Was found in good condition. They have retimbered the main slope for a distance of 150 feet with 12x12 inch oak timber, and have laid track in the same with 35 pound (T) rails. They have cleaned out the debris from the manway, ditched off the water as far as possible, retimbered a portion of it, laid a plank walk in it, and also cleaned and timbered the main inlet course. They have placed a No. 10 Cameron pump with the other two large ones at the main pumping station, in 4th, right hand heading, and have constructed a system of dams in the old workings of the part of the mine, which provides a large storage capacity for water. Previous to the construction of the dams the slope and headings were filled with water several times in each year, but since then, no part of the mine has been stopped by water. They have also rebuilt 85 Coke ovens.

Eleanora No. 1.—Was found in good condition; operations here are mostly confined to pillar work.

Eleanora No. 2 or Slope Mine.—Is in good condition, they replaced the small Murphy fan with a 20 foot Guibal fan during the year, and constructed two stone overcasts on the main inlet for the purpose of splitting the air current and properly directing it throughout the mine.

London Mine.—Was found in good condition. The wooden buildings over the boilers and machinery at the mines have been replaced by others constructed of corrugated iron which are of the following dimensions:

Main building over boilers, 45x48x16 feet.

Locomotive room, 16x30x12 feet.

Pump house, 12x14x12 feet.

Compressor room, 22½x36x12 feet.

There is a brick wall between boiler house and compressor room. The gable end and sides are lined with brick between the studding. The ceiling is lined with corrugated iron. The buildings are substantial, of good appearance, convenient for work and are almost fire proof. A Norwalk compressor 28x30 inches has been placed in the compressor room and three pumps have been added to two others already in the mine, all operated by compressed air.

Kurtz and Rinn Mine.—Was found in good condition.

Beachtree No. 2.—Was found in good condition. They have put a 20 foot Guibal fan in position also four flue boilers, hoisting engine with ⅞ inch rope, 10,000 feet in length, and the necessary buildings for the machinery. At No. 3 mine operations are confined to pillar work. The ventilation is good but the drainage is not good in some parts of the mine.

Coal Glen Mines Nos. 1 and 2.—Was found in good condition. Some ditching has been done in the headings which has improved the drainage. Mine No. 3 is a new opening made during the year in the so-called "lower vein." Considerable water has been encountered in this mine, requiring the construction of a ditch seven feet in depth at the drift mouth and extending into the mine for a distance of nearly 500 feet which renders the drainage good.

Brock Mines.—But little work has been done here during the year, and their condition as to ventilation and drainage was good.

Clarion Mines Nos. 1, 2 and 3. Were found in good condition.

Lycoming County Mines.

Red Run Mine.—They have been mining the so-called "E" seam which is now nearly exhausted and they are preparing to develope the underlying "BB" seam. They are arranging to erect an electric haulage plant.

McKean County Mines.

Instanter Mines.—Were found in good condition as to ventilation, but the drainage is not so good in some parts of the workings.

Lyman Mine.—Has been opened during the year. They are sinking a furnace shaft and making the second opening.

Tioga County Mines.

Antrim Mines Nos. 1 and 5.—Were found in good condition both as to ventilation and drainage.

Fall Brook Mine No. 2.—Was found in good condition.

Morris Run Slope.—Was found in exceptionally good condition, and is an excellent example of a well managed mine.

Salt Lake Mine.—Was found in fair condition.

Bear Run Mine.—Was found in fair condition having been somewhat improved during the year.

Arnot Nos. 3 and 5. No. 3 mine was found in good condition as to ventilation and drainage, but No. 5 was not so good.

Gurnee Mines.—Are operated in only a small way and are not subject to inspection under the law, during a considerable portion of the year.

TABLE 1.—*Showing location, &c., of collieries in the Fourth Bituminous Mine District.*

Name of Colliery.	Name of Operator.	Location—County.	Name of Superintendent.	Post Office Address.
Arnot Nos. 3 and 5.	Bloss Coal Company.	Tioga.	R. T. Dodson.	Arnot.
Antrim Nos. 1 and 5.	Fall Brook Coal Company.	Tioga.	James Pollock.	Antrim.
Adrian No. 1.	Rochester and Pittsburg Coal and Iron Co..	Jefferson.	Josiah Gregory.	De Lancey.
Adrian No. 2.	Rochester and Pittsburg Coal and Iron Co..	Jefferson.	Josiah Gregory.	De Lancey.
Berwind Shaft Colliery.	Berwind & White Coal Mining Company.	Clearfield.	J. A. Crist.	DuBois.
Brittanic.	Geo. Rees & Co..	Clearfield.	Geo. Rees.	Karthaus.
Bear Run.	Bloss Coal Company.	Tioga.	R. T. Dodson.	Arnot.
Beechtree Nos. 3 and 4.	Rochester and Pittsburg Coal and Iron Co..	Jefferson.	John W. Ryan.	Beechtree.
Brock Nos. 1, 2 and 3.	Noble Coal Company.	Jefferson.	B. F. Cartwright.	Ridgway.
Cascade No. 1.	Kaul and Hall.	Elk.	Andrew Kaul.	St. Mary's.
Cascade No. 2.	Kaul and Hall.	Elk.	Andrew Kaul.	St. Mary's.
Cameron.	Cameron Coal Company.	Cameron.		
Coal Glen Nos. 1 and 2.	Jefferson Coal Company.	Jefferson.	Austin Blakeslee.	Coal Glen.
Cataract No. 1.	Berwind White Coal Mining Company.	Clearfield.	A. J. Cook.	Bellefonte.
Cataract No. 2.	Berwind White Coal Mining Company.	Clearfield.	A. J. Cook.	Bellefonte.
Clermont.	Buffalo Coal Company.	McKean.	William Butts.	Clermont.
Clarion No. 1 to 7.	Northwestern Mining and Exchange Co..	Elk.	Joseph Bailey.	Brockwayville.
Dagus Nos. 1 to 10.	Northwestern Mining and Exchange Co..	Elk.	Joseph Bailey.	Brockwayville.
Eleanora No. 1.	Rochester and Pittsburg Coal and Iron Co..	Jefferson.	S. A. Rinn.	Eleanora.
Eleanora No. 2.	Rochester and Pittsburg Coal and Iron Co..	Jefferson.	S. A. Rinn.	Eleanora.
Fall Brook.	Fall Brook Coal Company.	Tioga.	Anton Hardt.	Wellsboro.
Gaines Mines.	Gaines Coal and Coke Company.	Tioga.	Patrick C. Smith.	Gurnee.
Glen Fisher.	Standard Coal and Coke Company.	Elk.	W. M. Harrison.	Williamsport.
Hazel Dell.	Kaul and Hall.	Elk.	Andrew Kaul.	St. Mary's.
Helvetia No. 1.	Adrian Islen.	Clearfield.	John McLeavy.	Helvetia.
Helvetia Slope.	Adrian Islen.	Clearfield.	John McLeavy.	Helvetia.
Instanter.	Buffalo Coal Co..	McKean.	William Butts.	Clermont.
Karthaus.	B. W. C. M. Co., Spear & Cowan, contractors.	Clearfield.	A. G. Spears.	Karthaus.
Kettle Creek No. 1.	Kettle Creek Coal Company.	Clinton.	James Ward.	Bitumen.
Kettle Creek No. 2.	Kettle Creek Coal Company.	Clinton.	James Ward.	Bitumen.
Kurtz Mine.	Kurtz and Rinn.	Jefferson.	George Kurtz.	Walston.
London Mine.	Falls Creek Coal Mining Company.	Jefferson.	John Reed.	DuBois.
Long Valley.	Long Valley Coal Company.	Bradford.	E. O. MacFarlane.	Towanda.
Lyman.	Buffalo Coal Company.	McKean.	John F. Keating.	Clermont.
Mead Run.	Shawmut Coal Company.	Elk.	George Mellinger.	Cartwright.
Morris Run Nos. 1 and 2.	Morris Run Coal Company.	Tioga.	W. S. Nearing.	Morris Run.
Mt. Carmel.	Mt. Carmel Coal Company.	Clearfield.	S. E. Emerick.	Karthaus.
Noble.	Noble Coal Company.	Elk.	George Mellinger.	Cartwright.
Paine Mine.	Kaul and Hall.	Elk.	Andrew Kaul.	St. Mary's.
Rochester.	Bell, Lewis and Yates.	Clearfield.	John Reed.	DuBois
Red Run.	Red Run Coal Company.	Lycoming.	Robert Brownlee.	Ralston.
Sandy Lick.	Bell, Lewis and Yates.	Clearfield.	John Reed.	DuBois.

TABLE 1.—*Continued.*

Name of Colliery.	Name of Operator.	Location--County.	Name of Superintendent.	Post Office Address.
Shawmut Nos. 1, 2 and 3...	Shawmut Coal Company, ...	Elk.	George Mellinger, ...	Cartwright.
St. Mary's Nos. 1,2,3,4 and 5,	St. Mary's Coal Company, ...	Elk, ...	Joseph Eddy, ...	St. Mary's.
Tannerdale, ...	St. Mary's Coal Company, ...	Elk, ...	Joseph Eddy, ...	St. Mary's.
Williamsport Mines, ...	Clearfield Coal Company.	Clearfield, ...	A. K. Jacobs.	Tyler.
Walston No. 1, ...	Rochester and Pittsburg Coal and Iron Co.,.	Jefferson	Edwin W. Robinson, ...	Punxsutawney.
Walston No. 2, ...	Rochester and Pittsburg Coal and Iron Co.,	Jefferson.	Edwin W. Robinson, ...	Punxsutawney.
Walston No. 3, ...	Rochester and Pittsburg Coal and Iron Co.,	Jefferson.	Edwin W. Robinson.	Punxsutawney.
Winterburn, ...	Winterburn Colliery, ...	Clearfield, ...	C. M. Blanchard.	Winterburn.

TABLE NO. 2.—*Gives the total number of tons of coal mined and shipped and tons of coke produced in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, &c., in the Fourth Bituminous Mining District, for the year ending December 31, 1895.*

Names of Collieries.	Location.	Total production in tons of coal.	Total production in tons of coke.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Number coke ovens.
Arnot Nos. 3 and 5.	Arnot, Tioga county.	262,416	976	266,511	208	651	.....	4	2,178	3	62	2	200
Antrim Nos. 1 and 3.	Antrim, Tioga county.	122,408	.....	62,173	136	380	.....	1	.....	4	28	2	.....
Adrian No. 1,	DeLancey, Jefferson county.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Adrian No. 2,	DeLandey, Jefferson county.	584,288	112,480	383,060	239	750	4	3	3,400	13	82	1	440
Berwind Shaft Colliery,	DuBois, Clearfield county.	25,000	.....	12,000	240	66	1	.....	300	8	3	.....	.....
Brittanic,	Karthaus, Clearfield county.	560	.....	500	38	38	.....	.....	.....	.....	.....	.....	.....
Brock Nos. 1, 2 and 3.	Brockwayville, Jefferson Co.	21,612	.....	21,612	105	42	.....	.....	170	2	.....	2	.....
Bear Run,	Landrus, Tioga county,	126,094	.....	125,083	203	272	1	1	1,022	3	3	3	.....
Beachtree No. 3,	Beachtree, Jefferson county.	172,371	.....	172,371	193	266	2	2	1,618	3	40	.....	.....
Beachtree No. 1,	Beachtree, Jefferson county.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cascade No. 1,	St. Mary's Elk county.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cascade No. 2,	St. Mary's Elk county.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coal Glen,	Coal Glen, Jefferson county.	207,000	.....	206,000	245	252	.....	.....	1,500	3	26	1	.....
Cameron,	Cameron, Cameron county.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cataract No. 1,	Cataract, Clearfield county.	35,566	.....	35,566	117	107	.....	.....	360	.....	20	.....	.....
Cataract No. 2,	Cataract, Clearfield county.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clarion Nos. 1 to 7,	Crenshaw, Jefferson county.	417,558	.....	413,594	220	579	2	9	1,684	4	59	3	.....
Clermont,	Clermont, McKean county.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dagus Mines Nos. 1 to 10,	Dagus Mines, Elk county.	244,296	.....	238,194	221	429	.....	1	1,608	5	27	1	.....
Eleanora No. 1,	Eleanora, Jefferson county.	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....
Eleanora No. 2,	Eleanora, Jefferson county.	644,475	.....	644,475	264	720	.....	.....	4,371	9	71	.....	.....
Fall Brook,	Fall Brook, Tioga county.	72,465	.....	33,186	248	259	.....	1	.....	1	22	1	.....
Gurnee Mines,	Gurnee, Tioga county.	6,511	.....	5,961	162	10	.....	.....	94	.....	1	.....	.....
Glen Fisher,	Glen Fisher, Elk county.	.....	.....	.....	.....	60	.....	.....	.....	.....	.....	.....	.....
Hazel Dell,	St. Mary's, Elk county.	29,183	.....	29,183	266	73	.....	.....	200	.....	3	.....	.....
Helvetia Slope,	Helvetia, Clearfield county.	267,855	9,331	253,784	212	269	.....	.....	2,077	6	18	.....	28
Helvetia No. 1,	Helvetia, Clearfield county.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Instanter,	Clermont, McKean county.	25,524	.....	17,143	284	55	.....	.....	80	.....	5	1	.....
Karthaus,	Karthaus, Clearfield county.	41,308	.....	41,308	185	74	.....	.....	175	.....	10	.....	.....
Kettle Creek No. 1,	Bitumen, Clinton county,	94,692	.....	94,692	145	198	.....	.....	777	.....	24	.....	.....

Table No. 2.—*Continued.*

Names of Collieries.	Location.	Total production in tons of coal.	Total production in tons of coke.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Number coke ovens.
Kettle Creek No. 2,	Bitumen, Clinton county,												
Kurtz Mine,	Walston, Jefferson county,	90,000		90,000	135	135					5		
Loudon,	Loudon, Jefferson county,	202,297		201,000	190	275				3	19	1	
Long Valley,	Long Valley, Bradford Co.,	52,711		52,158	209	109			1,359	2	20		
Lyman,	Clermont, McKean county,	12,683		12,600	256	31			120		2		
Mead Run,	Shawmut, Elk county,	80,335		80,335	215	132	1		728		7	1	
Morris Run Nos. 1 and 2,	Morris' Run, Tioga county,	198,920			127	607		1		4	39	1	
Mt. Carmel,	Karthaus, Clearfield county,	3,570		3,570	130	10			37		2		
Noble,	Elbon, Elk county,	36,367		36,367	224	70			300		5		
Paine,	Centerville, Elk county,	29,990		29,990	206	49			1		2		
Rochester Mine,	DuBois, Clearfield county,	248,000		245,000	139	350	1	2		8	58		
Red Run,	Red Run, Lycoming county,	83,830		81,000	277	164			1,060		15	1	
Sandy Lick,	DuBois, Clearfield county,					13							
Shawmut Nos. 1, 2 and 3,	Cartwright, Elk county,	121,757		121,757	233	178			1,104		15		
St. Mary's Nos. 1, 2, 3, 4 & 5,	St. Mary's, Elk county,	67,500		67,500	249	102		1	38		6	1	
Tannerdale,	Tannerdale, Elk county,												
Williamsport Mines,	Tyler, Clearfield county,	93,755	19,313	54,443	307	182			937	3	13	2	100
Walston No. 1,	Walston, Jefferson county,												
Walston No. 2,	Walston, Jefferson county,	569,454	164,698	276,692	253	695	1	4	1,920	10	75		700
Walston No. 3,	Walston, Jefferson county,												
Winterburn,	Winterburn, Clearfield Co.,	2,000		1,700	200	26			50	1	3		
Total,		5,234,371	306,198	4,410,508	7,308	8,578	14	32	29,266	95	795	24	1,468

TABLE No. 3.—*Showing the number of each class of employes at each colliery in the Fourth Bituminous Mine District, during the year 1895.*

Names of Collieries.	Location.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							
		Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	Grand totals—inside and outside.
Arnot Nos. 3 and 5,	Tioga,	3	436	.....	19	56	17	531	1	7	5	73	28	6	120	651
Antrim Nos. 1 and 5,	Tioga,	2	237	20	10	26	11	306	1	7	8	50	3	5	74	380
Adrian No. 1,	Jefferson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Adrian No. 2,	Jefferson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Berwind Shaft Colliery,	Clearfield,	2	440	31	15	60	13	561	5	9	18	3	152	2	189	750
Brittanic,	Clearfield,	1	32	.....	3	[illegible]	.....	39	1	4	10	.....	10	2	27	66
Brock Nos. 1, 2 and 3,	Jefferson,	1	27	.....	3	2	.....	33	.....	2	.....	.....	3	.....	5	38
Coal Run,	Tioga,	1	25	.....	1	.....	.....	29	1	2	1	.....	8	1	13	42
Beechtree No. 3,	Jefferson,	1	224	6	9	3	.....	243	1	5	5	.....	18	.....	29	272
Beechtree No. 1,	Jefferson,	2	229	3	.....	8	5	247	.....	2	3	.....	6	2	13	260
Cascade No. 1,	Elk,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cascade No. 2,	Elk,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Coal Glen Nos. 1 and 2,	Jefferson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cameron,	Cameron,	1	214	.....	6	12	.....	233	1	3	2	.....	10	3	19	252
Cataract No. 1,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cataract No. 2,	Clearfield,	1	73	12	.....	7	6	99	.....	1	3	2	1	1	8	107
Clarion Nos. 1 to 7,	Jefferson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clermont,	McKean,	3	451	10	.....	29	1	494	2	9	5	2	60	7	85	579
Dagus Mines, Nos. 1 to 10,	Elk,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eleanora No. 1,	Jefferson,	2	335	9	.....	19	.....	365	1	12	5	2	38	6	64	429
Eleanora No. 2,	Jefferson,	2	557	22	.....	82	16	680	3	8	5	2	20	2	40	720
Fall Brook,	Tioga,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Gurnee Mines,	Tioga,	2	93	14	3	18	6	136	2	3	1	14	.....	3	23	159
Glen Fisher,	Elk,	1	12	.....	.....	1	.....	14	.....	.....	.....	.....	1	2	2	16
Hazel Dell,	Elk,	1	45	.....	3	[illegible]	.....	52	.....	2	2	.....	3	1	8	60
Helvetia Slope,	Clearfield,	1	35	.....	8	[illegible]	.....	69	.....	1	.....	.....	2	1	4	73
Instanter,	McKean,	1	230	1	6	15	1	254	.....	2	3	.....	8	2	15	269
Karthaus,	Clearfield,	1	42	.....	1	5	.....	49	.....	1	2	.....	2	1	6	55
		1	60	.....	1	4	.....	66	.....	1	.....	1	5	1	8	74

Table No. 3.—*Continued.*

Names of Collieries.	Location.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							
		Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	Grand totals—inside and outside.
Kettle Creek No. 1.	Clinton.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kettle Creek No. 2.	Clinton.	1	160	1	9	10	2	183	.....	4	1	4	4	2	15	198
Kurtz Mine.	Jefferson	1	115	.....	.....	4	.....	120	.....	1	.....	.....	13	1	15	135
London.	Jefferson.	1	226	.....	7	18	7	259	.....	3	2	.....	10	1	16	275
Long Valley.	Bradford.	1	70	.....	4	9	3	87	1	3	3	5	8	2	22	109
Lyman.	McKean.	1	25	.....	1	2	.....	29	.....	.....	.....	.....	1	1	2	31
Mead Run.	Elk.	1	110	.....	3	7	1	122	1	2	1	.....	6	.....	10	132
Morris Run Nos. 1 and 2.	Tioga.	2	441	.....	34	39	23	539	1	8	4	19	29	7	68	607
Mt. Carmel.	Clearfield.	1	7	.....	.....	1	.....	9	.....	.....	.....	.....	1	.....	1	10
Noble.	Elk.	1	53	.....	2	5	1	62	1	2	1	1	2	1	8	70
Paine Mine.	Elk.	.....	38	.....	4	3	1	46	.....	1	.....	.....	2	.....	3	49
Rochester.	Clearfield.	1	269	.....	5	32	8	315	1	3	6	.....	23	2	35	350
Red Run.	Lycoming.	1	90	.....	8	7	9	115	1	6	1	1	38	2	49	164
Shawmut Nos. 1, 2 and 3.	Elk.	1	147	.....	3	12	.....	163	1	3	.....	.....	9	2	15	178
Sand Lick.	Clearfield.	1	12	.....	.....	.....	.....	13	.....	.....	.....	.....	.....	.....	.....	13
St. Mary's Nos. 1, 2, 3, 4 and 5.	Elk.	1	90	.....	3	3	.....	97	.....	1	2	.....	1	1	5	102
Tannerdale.	Elk.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Williamsport mines.	Clearfield.	1	123	3	.....	9	2	138	1	2	4	.....	36	1	44	182
Walston No. 1.	Jefferson.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Walston No. 2.	Jefferson.	1	350	20	.....	40	12	423	4	10	11	2	243	2	272	695
Walston No. 3.	Jefferson.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Winterburn.	Clearfield.	2	12	.....	.....	2	.....	16	.....	.....	2	.....	5	3	10	26
Total.	.....	49	6,157	152	171	561	145	7,235	31	130	116	181	809	75	1,343	8,578

Table No. 4.—*List of fatal accidents that occurred in and about the mines of the Fourth Bituminous Mine District for the year ending December 31, 1895.*

Date of accident.		Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan.	10	William Swanson.	Miner.	25	S.		Mead Run.	Elk.	Was instantly killed by fall of slate while shoveling coal from under it. This man did not seem to realize the danger in which he labored, or he would have either put up a post to support the roof or would have taken it down. He had been working in this place only about six days, and was not accustomed to the kind of work.
	23	James Anderson.	Miner.	36	M		Beechtree No. 3.	Jefferson.	Was instantly killed by fall of coal while engaged drawing pillars; the coroner held an investigation and rendered a verdict of accidental death.
April	4	James Ridge.	Miner.	35	M.		Adrian No. 2.	Jefferson.	Was instantly killed by mine car; the deceased and two others were putting a car on the track with a rail for a lever, when one of them let the rail go to block the car, causing the rail to fly up throwing him against the roof and breaking his neck.
	30	Hugh Black.	Miner	14			Bear Run	Tioga.	Fatally injured by an explosion of shot powder at place of working, and died during the following evening at the Cottage Hospital.
May	3	Milton Tuttle.	Miner.	14			Eleanora No. 1.	Jefferson.	Was fatally injured while loading a car by fall of slate, which broke his right arm, collar bone and several ribs. He was engaged on pillar work with his adopted father, David Anderson; the accident occurred at 11 A. M., and he died at 3 P. M. the same day.

TABLE NO. 4.—*Continued.*

Date of accident.		Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location--County.	Nature and Cause of Accident.
June	13	Thomas Walters.	Door tender,	14	....	....	Walston Slope.	Jefferson,	Was fatally injured by being caught between wagons and rib, on the dilly road, and died some twenty hours after the accident.
	27	Thomas Gargin.	Miner.	16	....	....	Rochester.	Clearfield.	Was fatally injured by fall of slate and died two hours afterward; was working with his father at the time of the accident.
Aug.	27	James Hughes.	Miner.	52	S.	....	Clarion No. 1.	Jefferson,	Was instantly killed by fall of coal, while mining. He with two others were engaged taking out room pillars; he had the coal undercut to a depth of five feet and was undercutting when it dropped on him. The width of the pillar was about sixteen feet "open ended," and no spraggs for support.
Sept.	28	Gust Tackally.	Miner.	29	M.	1	Clarion	Jefferson.	Was instantly killed by fall of slate. After a careful examination of the place where the accident occurred, I am of the opinion that it was unavoidable; the slate which fell measured on an average five feet long two feet wide and eight inches thick, the shape being in the form of what is known in mining parlance as a "pot." Deceased left a widow and one child.
	30	Thomas Hayes.	Miner	45	M.	6	Beechtree	Jefferson	Was instantly killed by a fall of slate from side of heading; the coroner held an investigation and rendered a verdict of accidental death.

Oct.	7	James Nicol, ...	Driver.	15	.....	Adrian	Jefferson.	Was instantly killed by being caught between car and rib, while riding on front of the car in coming down grade; the foreman had warned him repeatedly not to go so fast, but he failed to heed the warning.
	25	Peter Cunningham.	Miner.	22	M.	2 Berwind shaft colliery...	Clearfield	Was fatally injured by fall of roof caused by pressure of water from above or over head, and died about four hours after the accident occurred.
Nov.	11	Leon Osmond.	Miner.	35	M.	.... Adrian	Jefferson.	Was instantly killed by fall of slate through not having set any posts under it, death resulting largely from his own neglect.
Dec.	10	Alexander Howrison, ...	Fire boss.	35	S.	.... Adrian.	Jefferson.	Was seriously injured by fall of slate, and died the following day. He had made examination of the working places in the morning and discovered a loose stone in room number thirteen; after he had made his rounds, he went back to take the slate down and was in the act of sounding it when a piece four feet long two feet wide and about ten inches thick fell upon him and bruised him internally.

TABLE No 5.—*List of non-fatal accidents that occurred in and about the mines of the Fourth Bituminous Mine District, for the year ending December 31, 1895.*

Date of accident.		Name of Person.	Occupation	Age.	Widow.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan.	7	Alex. Armstrong.	Rope rider	17	....	Eleanora.	Jefferson,	Leg and collar bone broken by being caught between car and rib.
	9	John Churan.	Miner	19	....	Clarion No. -	Jefferson,	Three ribs broken by fall of roof.
	16	Fred. Shots.	Miner.	33	M.	St. Mary's.	Elk,	Leg broken by fall of coal.
	19	Steve Luster.	Miner.	42	M.	Clarion.	Jefferson,	Collar bone broken by fall of coal.
Feb.	8	David Walters	Driver.	18	....	Walston,	Jefferson,	Body bruised by being caught between car and rib.
	15	Peter Crat.	Miner	26	M.	Antrim.	Tioga,	Seriously injured in taking out a loaded car and being thrown against the rib.
	23	Edward Owens	Miner.	25	S.	Beachtree.	Jefferson,	Leg broken by fall of coal.
Mar.	1	Peter Lascoske.	Miner.	26	S.	Rochester.	Clearfield,	Body bruised by a fall of roof.
	4	Albin Johnson	Miner.	50	M.	Dagus No. 2.	Elk,	Leg broken by mine car.
	16	James Stratton.	Miner	50	M.	Clarion No. 7.	Jefferson,	Four ribs broken by being caught between car and rib.
April	12	Andy Pollak.	Miner	40	M.	Adrian.	Jefferson,	Seriously burned by gas.
	19	William Harris.	Driver.	16	M.	Clarion.	Jefferson,	Hand severely bruised while coupling up his trip.
	22	Joe Galeton.	Miner	38	M.	Clarion No. 7.	Jefferson,	Both collar bones broken by being caught by a fall of coal.
	26	John Russell.	Miner.	35	M.	Fall Brook.	Tioga,	Hand and leg hurt by a fall of coal.
May	3	Daniel Harrington.	Timberman	19	....	Rochester.	Clearfield,	Leg broken by being caught by a fall of slate.
	3	Joseph Burns.	Miner.	26	M.	Walston.	Jefferson,	Face and breast burned by a blown out shot in his room.
	13	Martin Swanson.	Miner.	22	S.	Clarion No. 3.	Jefferson,	Leg severely bruised by a fall of slate.
	16	Herman Rostice.	Miner.	26	S.	Walston.	Jefferson,	Leg broken by a fall of roof.
June	3	James Benson.	Miner.	57	M.	Beachtree.	Jefferson,	Leg broken by a fall of roof.
	6	John Merrino.	Miner.	45	M.	Clarion No. 3.	Jefferson,	Back hurt by a fall of slate.
	22	George Morcheski	Miner.	36	M.	Arnot.	Tioga,	Fingers bruised by fall of coal.
July	6	Hugh McGinnes.	Miner.	25	S.	Clarion No. 3.	Jefferson,	Leg broken by fall of slate.
	9	Thomas Hoods.	Miner.	36	M	Adrian.	Jefferson,	Severely bruised by fall of coal.
Aug.	6	James Wheeler	Miner	46	M.	Arnot.	Tioga,	Back hurt by a fall of slate.

6	Andrew Stacey,	Miner,	28	M.	Walston No. 3,	Jefferson,		Arm broken by fall of slate.
20	Oscar E. Johnson,	Miner,	30	S.	Clarion No. 2,	Jefferson,		Two ribs broken by fall of rock
Sept. 10	Jacob Holt,	Miner,	40	M.	Eleanora No. 1,	Jefferson,		Leg broken by fall of coal.
Oct. 11	Alfred Larson,	Miner,	45	M.	Arnot,	Tioga,		Foot bruised by fall of slate.
Nov. 12	Mike Levpskey,	Miner,	30	M.	Adrian,	Jefferson,		Severely burned by gas.
20	Frederick Dunbar,	Miner,			Arnot,	Tioga,		Back injured by mine car.
Dec. 23	Andrew Bowers,	Sprager	20	S.	Bear Run,	Tioga,		Arm broken by mine car.
30	Thomas E. Lewis,	Miner,	32	M.	Morris Run,	Tioga,		Arm broken by empty car on dilly road.

FIFTH BITUMINOUS DISTRICT

(FAYETTE AND SOMERSET COUNTIES.)

Uniontown, Pa., March 2, 1896.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: In compliance with the requirements of section 11, of article ten of the act of Assembly, approved May 15, 1893, I have the honor herewith to submit my annual report as Inspector of Mines for the Fifth Bituminous District for the year ending December 31, 1895.

I am glad to report, that with few exceptions, the condition of the mines is improved in comparison with last year, especially is this true with regard to the ventilation. Five new fans and six furnaces were put in operation during the year, all of which are giving very satisfactory results.

The mines have worked better this year than last, and consequently the production of coal and coke is considerably greater. As will be seen from the summary of statistics accompanying this report, the average number of days worked last year was 170¾, while this year it was 241½. The total production of coal for 1894 was 3,908,348 tons (net) as against 6,423,802 tons for 1895, showing about 35 per cent. of an increase.

The number of fatal accidents was the same, as thirteen persons lost their lives during each year. The number of non-fatal accidents was very much increased for 1895, as compared with 1894; but this can be attributed mainly to the fact that more attention was given to the reporting of these accidents in 1895, than in 1894. This year quite a number of the non-fatal accidents reported, are of a very trivial character, while last year only accidents that involved the suspension of work, were reported, which, in my opinion, are the only ones that should be reported. A slight scratch, cut or bruise that does not incapacitate the person receiving it from following his usual employment, should not be reported, as it is only the "serious accidents and the nature thereof" that are required by the law.

The number of tons of coal produced for both fatal and non-fatal accidents is greater than for last year, as 494,138 tons were produced for each fatal accident in 1895, as against 300,642 tons in 1894, and

for each non-fatal one, 91,769 tons in 1895, while in 1894, the tonnage was 83,156. The number of persons employed for each fatal and non-fatal accident during 1895 was 645 and 118, respectively, as against 586 and 162 during 1894.

It is an unpleasant duty to have to report year after year the same old story, that a large number of the accidents (both fatal and non-fatal) were the result of carelessness, either on the part of the injured parties themselves, or of some other person, and yet this is too true. "'Tis true, 'tis pity, and pity 'tis 'tis true." Seven of the thirteen persons who were killed during the year ought to have been alive to-day, if they had exercised even ordinary care to protect their lives, while two of them met their death through the carelessness of others, thus only four of the fatalities can be properly said to have been accidental, the others being the result of contributary negligence either by themselves or others. How to prevent accidents under such circumstances is a problem very difficult to solve. Legislation has failed to solve it, as most of these accidents occur in violation of law. What seems to be needed more than anything else is better discipline in and about the mines; discipline of such a strict character that it will not take anything for granted, but which is almost military in its exactness, and which will not allow disobedience of instruction to go unpunished.

That accidents will occur even after every known precaution has been taken, is a fact that cannot be disputed, but there can be no question but that their number can be reduced to a minimum by systematic methods of performing the work, and the enforcement of strict discipline.

Two mines were worked out and abandoned during the year. There were no new ones opened, and five were idle during the entire year.

There were two voluntary advances of wages during the year which has engendered a better feeling between capital and labor than has ever before existed in this district, and which will tend to prevent the recurrence of strikes with their consequent loss to both operators and workmen.

One person was prosecuted for violation of law, the result of which has had such an important effect upon the interpretation of the law, that I have given a special account of it in another part of this report.

In addition to the usual statistical tables, a detailed description of the thirteen fatal accidents will be found in another part of this report. All of which is respectfully submitted.

CHARLES CONNOR,
Mine Inspector.

Summary of Statistics.

	1894.	1895.
Number of mines in the district,	67	67
Number of mines operated during the year,	64	62
Number of mines idle during the year,	3	5
Number of mines opened during the year,	7	.....
Number of mines abandoned during the year,	.....	2
Number of persons employed inside the mines,	4,943	5,197
Number of persons employed outside the mines,	2,676	3,192
Total number of persons employed,	7,619	8,389
Total number of days worked by all the mines,	10,930	14,970
Average number of days worked by all the mines,	170¾	241½
Number of tons (2,000 pounds) of coal mined during the year,	3,908,348	6,423,802
Number of tons (2,000 pounds) of coal shipped during the year,	669,701	950,364
Number of tons (2,000 pounds) of coke produced during year,	2,264,971	3,756,487
Number of tons of coal mined for each fatal accident,	300,642	494,138
Number of tons of coal mined for each non-fatal accident,	83,156	91,769
Number of persons employed for each fatal accident,	586	646
Number of persons employed for each non-fatal accident,	162	118
Number of horses and mules used inside,	619	710
Number of coke ovens built during the year,	320	169
Number of coke ovens in district,	7,517	7,686
Number of mine locomotives in use,	15	14
Number of kegs of powder reported as used in mines,	3,835	6,150
Number of steam boilers in use,	183	192
Number of fatal accidents during the year,	13	13
Number of non-fatal accidents during the year,	47	70
Number of wives left widows by fatalities,	9	7
Number of orphans left by fatalities,	22	22

Classification of Accidents.	1894.		1895.	
	Fatal.	Non-fatal.	Fatal.	Non-fatal.
By falls of roof or slate,	6	10	4	21
By falls of coal,	1	7	.....	10
By being struck by cage,	1	.....	.....	.....
By falling down shafts,	2	.....	1	.....
By mine wagons,	2	23	5	24
By gunpowder,	1	.....	.....	3
By mules and horses,	.....	2	.....	3
By being struck by posts,	.....	1	.....	.....
By rope haulage machinery,	.....	.....	1	.....
By larries on coke ovens,	.....	.....	2	.....
By boiler explosions,	.....	.....	.....	4
By miscellaneous causes,	.....	4	.....	5
Totals,	13	47	13	70

Important Mining Decision.

On information received from Mr. Elias Phillips, mine boss of Lemont No. 2 mine belonging to the McClure Coke Company, I instituted proceedings against Charles Matukin by making the following information before Wm. H. Miller, a justice of the peace: "That at Lemont No. 2 mine in the county of Fayette on the 26th day of October, 1895, the said Charles Matukin opened a safety lamp belonging to another miner, and opened his own lamp and lighted it from that of the other miner, in a mine where nothing but locked safety lamps are allowed to be used on account of the generation of gas in said mine." A warrant was issued for his arrest, and at

a hearing before the justice of the peace aforesaid, after hearing evidence, $300 bail was demanded, and in default defendant was committed to the county jail to await trial before the court of quarter sessions. The grand jury having found a true bill against him he was placed for trial before Judge Ewing on December 4, 1895, whereupon the counsel for the defendant moved to quash the indictment, on the ground that the indictment was not supported by the information, and that it was no offense against the act of Assembly to open and light a lamp in the mine. Counsel for the prosecution read section 5, of article V, of the act of Assembly, approved May 15, 1893, relating to the bituminous coal mines of Pennsylvania, which says: "All entries, tunnels, airways, traveling ways and other working places of a mine where explosive gas is being generated in such quantities as can be detected by the ordinary safety lamp, and pillar workings and other working places, in any mine where a sudden inflow of said explosive gas is likely to be encountered (by reason of the subsidence of the overlying strata or from any other cause) shall be worked exclusively with locked safety lamps. The use of open lights is also prohibited in all working places, roadways or other parts of the mine through which fire-damp might be carried in the air current in dangerous quantities." He then argued that in as much as Lemont No. 2 mine generated explosive gas, and was worked exclusively with locked safety lamps, and that the use of open lights was prohibited therein, that the defendant had by opening his lamp in the manner described in the information, violated the section quoted. The court in reply said, that he did not construe the law in that manner, but that the use of open lights was prohibited for the purpose of working with only, and as the defendant was charged with opening a safety lamp, and not with using an open light for the purpose of working with it, that therefore, there was nothing in the section of the law that prohibited him from so opening his safety lamp. He sustained the motion of the defendant's counsel and made the following order:

"Now December 4, 1895, on motion of counsel for defendant, the indictment in this case is quashed for the reason that it is not sustained by the information made in the case."

The grand jury being still in session, on advice of counsel, I made another information against the defendant and had him rearrested, when he waived a hearing, and the case came before the grand jury a second time on the following information: "That at Lemont No. 2 mine of the McClure Coke Company, in the county of Fayette on the 26th day of October, 1895, the said Charles Matukin being a miner at work in said mine at a place therein, where by the order of the mine boss, none but locked safety lamps were allowed to be used, said Charles Matukin did intentionally and carelessly open his lamp

which had gone out, and did open the lamp of another miner there working, which lamp was burning at the time, and did then and there light his lamp from said miners lamp, said Matukin having both lamps open and burning, and so using them at that time, thereby endangering the lives, safety and health of persons working in said mine, and the security of the mines and machinery. Said Charles Matukin did also intentionally and carelessly injure said safety lamp and disobey the order of the mine boss by lighting said lamp at a place not permitted, as special places were designated for lighting lamps."

The grand jury again found a true bill against the defendant and the case went the second time before the court for trial. Judge Mestrezat was on the bench. The indictment was made in accordance with article XXI, sections 1 and 2, as follows:

"Section 1. Any person or persons whomsoever, who shall intentionally or carelessly injure any shaft, safety lamp, instrument, air course or brattice, * * * * or disobey any order given in carrying out the provisions of this act, or do any other act whatsoever, whereby the lives or the health of persons, or the security of the mines or machinery is endangered, shall be deemed guilty of a misdemeanor, etc."

"Section 2. The neglect or refusal to perform the duties required to be performed by any section of this act by the parties therein required to perform them, or the violation of any of the provisions or requirements hereof, shall be deemed a misdemeanor, etc."

At the trial, evidence was given by witnesses proving that the defendant had opened a safety lamp and lighted his own therefrom; that he had disobeyed orders in opening said safety lamp beyond the regular lighting station, and that he had injured such safety lamp by opening it, as by so doing he had destroyed it as a safety lamp by removing the wire gauze from around the flame, and had made it simply an open light and it was no longer a safety lamp while such gauze was removed from around the flame, and that he had done an act which endangered the security of the mine and the lives of the persons employed therein. The defendant himself (when put on the witness stand), admitted that he had opened the safety lamp and lighted his own from it, but claimed that he did not know that he was disobeying any orders or violating any law, because of his imperfect knowledge of the English language, he being a Polander. Judge Mestrezat in charging the jury, took substantially the same position as Judge Ewing with reference to use of safety lamps in mines, viz: That locked safety lamps had to be used to work with, in mines where explosive gases were generated, but that they could be opened and used to light another safety lamp with. With reference to the other courts he charged that if the evidence had shown that the defendant

had been guilty of any act which injured any safety lamp or endangered the lives of the persons in the mine, or had disobeyed any order whereby the safety of life or property had been jeopardized, then it was their duty to convict him under article 21, sections 1 and 2, of the mining law. The jury retired and in about an hour returned a verdict of "not guilty, but the defendant to pay the costs," which virtually means "not guilty, but don't do it again."

That the verdict was a surprise to those who had heard both the evidence and the judge's charge, goes without saying. But what to me is more surprising was, that the judge in view of the evidence, and the defendant's own admissions in his testimony, and his own charge to the jury, should have accepted a verdict so directly at variance with the facts in the case. The effect of such a verdict as was rendered in this case is demoralizing and disastrous beyond conception. It breaks down all discipline in mines. It virtually gives permission to persons employed in mines where locked safety lamps are used, to open them at any time, and in any place, and thereby makes disastrous explosions not only possible but probable, with the consequent loss of life and property. I have not put the case too strongly by any means, for if the interpretation of the law with reference to the use of safety lamps is correct as given by those judges, it simply removes all the protection that these lamps were intended to afford to life and property, in mines where explosive gases are evolved, and with these safeguards removed, disaster and death will inevitably follow. One of two things must be done to prevent such direful consequences. If the law is not specific enough on this point, then it ought to be changed or additions made thereto of such a character that sufficient protection will be afforded; or if on the other hand the construction of the law by these judges is wrong, then they ought simply to alter their interpretation of it. One thing is very apparent, and that is, that the mining law as a whole was created for the very purpose of "providing for the lives, health, safety and welfare of persons employed in mines," and any interpretation of its words or clauses must harmonize with the objects, intentions and purposes for which the law was enacted, and where any doubt exists as to the meaning of any part of it, the benefit of the doubt should be given in favor of protection to life and health. This proposition will no doubt be admitted without question. With this idea clearly understood, when any part of the law is being considered, its interpretation must be harmony with this principle. Therefore when the words found in article 5, section 5, are to be construed, it would be well to consider what was intended by them. the words, "the use of open lights is also prohibited in all working places, roadways or other parts of the mine through which fire-damp

might be carried in dangerous quantities" were evidently intended to prevent an explosion of the fire-damp, by prohibiting the use of open lights in such places. Now the word "use" is not qualified in any manner whatever, and therefore it must be accepted in its widest and broadest sense, and the only legitimate meaning that can harmonize with the purpose of the law is, that open lights are prohibited for any purpose whatsoever, in such places. Whenever it is attempted to construe the meaning of the word "use" to special purposes, and define what these purposes are, avenues of danger are opened up, and the object for which the law was enacted is nullified. For instance if it is claimed that the use of open lights is prohibited for working with in such places, but that their use is not prohibited to relight a safety lamp with, the untenableness of such a claim is seen at once, for if the law recognizes the danger of working with an open light under such circumstances, in such places, it is very obvious that the same danger would exist if an open light was used to light a safety lamp with, so that it is impossible to draw the danger line and say that for this purpose open lights are prohibited, but for that purpose they may be allowed. The only safe ground to stand upon therefore, is to give the meaning of the word "use" in its most comprehensive sense, and to interpret it in such a way as will afford the greatest protection to the lives, health, safety and welfare of the persons employed in the mines. To take any other position makes the law non-effective, and renders it powerless to prevent the occurrence of possible catastrophes in mines which generate explosive gases, and gives a license to unscrupulous persons to violate the law with impunity.

In writing thus, I have not any desire to criticise the decision of the judges. They were no doubt actuated by a high sense of duty, and gave their decisions in accordance with their convictions as to what the law meant; but as an officer of the State whose duty is to enforce the mining law, which has for its object the welfare of the persons employed in the bituminous coal mines of Pennsylvania, I am constrained also by a sense of duty, to point out the practical effect that the decision made in the case tried before them, will have upon the mining community, and the possible dangers that may arise in consequence of it; and also to point out in this official manner the immediate necessity for legislative action, with reference to amending the mining law so that protection to life and property may be assured. To this end it would be well if the attention of the law makers at the next session of the Legislature should be directed to this matter by some person who understands what is required, and knew how to make such amendments to the law as would meet the exigencies of the case.

Description of Mines in the Fifth Bituminous Inspection District.

Atlas.—This mine and Mahoning slope which adjoins it, are operated by the Cambria Iron Company. During the year a large fan was erected at the Mahoning opening, and the airways in both mines were so arranged that the air current ventilated the workings of each mine in a like manner. The hauling roads were also so connected together underground that the two mines were practically one, and with these conditions could only be so regarded under the requirements of law. The company therefore dispensed with the services of one mine boss, and are now operating the two openings as one mine under the supervision of one mine foreman. The mines are in excellent condition both as regards ventilation and drainage. While the ventilation is ample for all the requirements, the management think that they are not getting the full benefit of their large fan, on account of the narrow airway through which the air has to travel into the mine before it is split for each mine. To remedy this defect another passage way is to be driven parallel to the present one, for a distance of 3,600 feet. When this is completed, the air for each mine will be split at the fan and no doubt a greatly increased volume of air will be put in circulation around the workings of the mines.

The mines are carefully looked after and will not suffer for want of attention. Mining boss, Charles R. Trew.

Anchor.—This mine is very nearly exhausted and will be worked out in a few months. Its condition with reference to healthfulness and safety is good. Mine boss and superintendent, William Duncan.

Bessie.—This mine has been developed very rapidly during the year, and it is in good condition generally. The management is capable of looking after it in an efficient manner and it will receive careful attention. A new fan ten feet in diameter has been erected, and the ventilation is abundant and well carried up to the face of workings. Mine boss and superintendent, George Whyel.

Buffalo.—This mine has not worked any during the entire year.

Berlin.—Located near Berlin, Somerset county. A small mine mostly producing coal for domestic purposes. Worked about half the time during the year. Its condition is fairly good as to drainage and ventilation. Mine boss, Conrad J. Baker.

Casselman.—This mine is situated at Garrett on the Baltimore and Ohio railroad in Somerset county. The mine has never been operated very fully ever since the strike which occurred two years ago. The trade which was lost at that time has never been recovered. The only market for the coal is in coaling the engines on the Baltimore and Ohio railroad, which gives employment to about 34 men, as compared with about 134 in former years. The mine is

in good condition as regards to drainage, but is not as well ventilated as it might be. The ventilation power is the radiation from steam pipes in the slope, and is not sufficient at all times during the year to put in circulation the necessary quantity of air to properly ventilate the working places. A small force fan placed over the air shaft would greatly aid the ventilation and give satisfactory results. Mining boss, Henry Naylor.

Cumberland.—The condition of this mine has been very much improved during the year, by the building of a furnace at the bottom of an air shaft, 50 feet deep. On the top of this shaft a stack 50 feet high has been built, making a motive column of 100 feet. Since the furnace has been in operation the volume of air has been abundant for the wants of the miners employed. This mine had been about worked out, but the company have purchased about 200 acres adjoining their present property and will develop it as rapidly as possible. The development will be made through their present openings, and will be conducted on much better methods than formerly. The system will be double entry, and more attention will be given to securing better ventilating results than has been in the past. Large quantities of gunpowder are used in blasting the coal, causing immense volumes of smoke to vitiate the mine atmosphere. To prevent this as far as possible, I had printed notices posted at the mine, regulating the use of gunpowder, and permitting blasting to be done only at noon and at 4 p. m., of each day. This has been of great benefit to the condition of the atmosphere in the mine, and to the health and comfort of the persons employed therein. Mining boss and superintendent, Fred. Rowe.

Clarissa.—This mine is in its usual excellent condition both with regard to ventilation and drainage. The natural conditions are all favorable for keeping the mine in good order, and the management always endeavor to have it in such a condition that no fault can be found with it. Mine boss, J. C. Moore.

Chester.—Operated by E. A. Humphries & Co. This mine is now in fairly good condition. While on one of my visits I found that a number of men were working ahead of the air current. I called the attention of the mine foreman to the fact and had him stop the places until the air current was brought up to them. He put a double shift on the air course at once, and in about five days had the air circulating all around the mine in accordance with law. The mine has been in good condition ever since. Mining boss, James Allen.

Crossland.—This mine is in such excellent condition that no fault can be found in any respect. It is well managed in every particular, and the demands of law are exceeded. The disposition to have everything in first class order is deserving of commendation. If the same

disposition were shown by all mine operators, inspection of mines would not be necessary. Mining boss, David Walters.

Cheat Haven.—This mine is in very good condition so far as drainage and ventilation are concerned. It has not worked steadily during the year. The coal is of inferior quality and does not readily command a market. This, together with the fact that it is placed at a disadvantage with regard to railroad transportation and rates, militates against its successful operation. An effort will be made to coke the coal and if this proves successful, ovens will be built and the coal manufactured into coke. Mining boss, Thomas Louden.

Edna.—Worked only 72 days and employed only two men, who dug coal for domestic purposes. Was not under the requirements of the law.

Elm Grove.—This mine has been developed extensively during the year, the object being to get to the boundary of property as quickly as possible and operate the mine on the retreating system of working. To accomplish this object, all the headings were driven, and very few rooms worked. A large fan was erected during the year which produces an abundant volume of air which is well conducted into and around the working places of the mine. An improvement could be made in the construction of the stoppings between the main intake and return airways, if they were constructed of masonry instead of boards as at present. Not only would they be more durable and in the end less expensive, but what is of the greatest importance, the numerous leakages would be prevented, and a better distribution of the air guaranteed for all further operations of the mine.

One hundred new coke ovens were built, also a new engine and boiler house, in which are placed a new powerful engine and three new boilers.

A system of haulage is to be adopted to enable the mine to produce the increased quantity of coal demanded by the increased number of ovens, also a new slope is being opened from the inside of the mine which will give additional facilities for handling the coal from the mine. When completed, these improvements will make this mine one of the best equipped in the region. The drainage and general condition of the mine is being carefully looked after, as well as the safety of the persons employed therein. Mining boss, Joseph Owens.

Fairchance.—This mine is now in better condition than at any time in its history, on account of its being driven under a heavier surface than ever before. The surface over the coal was always so thin, that "breaks through" to the surface were frequent, thus making it impossible to maintain any system of ventilation, and also allowing large quantities of surface water to enter into the mine, which had to be pumped out again. Now, however, these conditions no

longer exist. All the coal under the thin surface has been practically worked out, and the developments are being made where the surface is thicker, consequently a better system of ventilation can and is being maintained, and the drainage is under better control. Arrangements are being made whereby the surface water will be made self draining by a system of dams and drains which will prevent the water from the old workings from entering into the present developments thereby reducing the quantity of water to be pumped out of the mine. When these improvements are completed, the mine will virtually be a new one and will be worked on systematic methods. The old part of the mine was never worked on any system unless we choose to denominate it the "indefinite system."

The fact that the works are now owned by the H. C. Frick Coke Company is a guarantee that the "indefinite system" will not be perpetuated, but that all the improvements above named will be consummated and from out of chaos, order will be speedily evolved. Mining boss, Edwin Austin.

Ferguson.—Operated by the Dunbar Furnace Company. The ventilation and drainage of this mine are good. The mine has not been worked much above half its capacity during the year on account of the lower workings having been drowned out. Early in the spring a terrible wind and rain storm visited the neighborhood of Dunbar, suddenly transforming small runs and creeks into raging torrents. One of these small runs passes close to the mouth of Ferguson slope, and is crossed by a low bridge over which the track from the mine is laid. The timbers of this bridge catching and holding the debris brought down by the rapidly rising water in the run, formed a barrier, which dammed the water back and caused the creek to overflow its banks, and the full volume of water was turned into the mouth of the slope, down which it rushed with terrific force into the workings of the mine, tearing up the tracks, and washing the roadbed away, and working destruction and ruin as it went on its maddening course towards the lower part of the mine, which it filled up with water and debris until it reached the level where connection is made into the Hill Farm mine. Along this level the waters rushed into the lower workings of the latter mine, and nearly filled up all the dip workings, and only the abatement of the storm prevented the complete flooding of both mines. Fortunately the persons in the mines were able to escape and no lives were lost. The water was pumped out of the Hill Farm mine, and a lower level was driven towards Ferguson slope for the purpose of draining the water therefrom. This level was cut through to the bottom part of the slope during the latter part of December. The water is being drained off, and the rubbish is being cleared out preparatory to resuming work in that part of the mine again. Mining boss, Patrick McQuade.

Fairview.—This mine is now in considerably better order than it ever was. To get it in this condition, however, required the use of heroic measures. In all its past history it had been allowed to ventilate itself as best it could by natural means. Nature was not even aided by the erection of stoppings to conduct the air around the workings. After my first visit this year, on finding that my suggestions with reference to the furnishing of some artificial means to produce ventilation had not been carried out, I entered proceedings against the superintendent, Mr. Thomas Rees, for failure to comply with the provisions of the mining law. Mr. Rees gave bond for his appearance at court and at once commenced to build a furnace and erect stoppings throughout the mine, and so vigorously was this work prosecuted that the provisions of the law were all complied with before the time for trial of the case had arrived. Mr. Rees notified me of his compliance with the law and asked me to withdraw the suit, he agreeing to pay all the costs in the case. After visiting the mine to satisfy myself that such was the case, I consented to do so. I also prohibited blasting in the mine until noon and 4 o'clock p. m., of each day that the mine was in operation. This in connection with the improvement in ventilation by the use of the furnace, has made a very agreeable change in the condition of the mine. Mining boss, Archie Cochran.

Grindstone.—This mine was idle all the year, nothing having been done except to pump out the water. For the purpose of supplying the boilers with coal, two men were employed during the year.

Great Bluff.—This mine was idle nearly all the year, having only worked 63 days at the latter part. A new fan was put up in the early part of the year and gives good results. The drainage is also good. Mining boss, William Holsing.

Grassy Run.—A new furnace was built in this mine which has very much improved the ventilation. This, together with the regulations as to blasting by gunpowder has made a wonderful change for the better in the healthfulness of the mine. The drainage and other conditions are such that no complaint can be made. Mining boss and superintendent, John Meagher.

Hamilton.—This mine was exhausted at the beginning of the year. Very little coal was produced and it never really employed enough men to be under the provisions of the law during the year.

Hocking.—This mine was one of the number which had failed to provide artificial means of producing ventilation until after suit had been entered against the officials, but which was promptly supplied with a good and efficient furnace immediately thereafter. The officials paid the costs in the case and the suits were withdrawn on their compliance with the requirements of the law.

This mine is now well ventilated and is in good condition generally. Blasting is only permitted at such hours as the mine foreman designates. The healthful condition of the mine is due to the watchfulness of that official in enforcing strict discipline in regard to the blasting by gunpowder, as much as by the improved ventilation. Mining boss, R. A. Winter.

Hill Farm.—This mine has been in very bad condition during the year, owing to the existence of a very dangerous roof on the slope, and the emission of noxious gases into the manway, where the men have to travel to and from their work. I had repeatedly suggested that these dangerous conditions should be remedied, and just as often had I been assured by the management that the necessary steps would be taken to put things in better condition, but at each succeeding visit I found the danger increasing rather than diminishing. I therefore determined to have the dangerous condition remedied promptly, believing the danger was of such a character that the lives and health of the persons employed in the mine were imperiled. I thereupon notified three of the other bituminous mine Inspectors to visit the mine and with myself examine into the dangers complained of. The inspection was made on the 13th day of September by the Inspectors, with the result that the following notice was sent to the superintendent of the mine:

"Robert Lang, Superintendent of Hill Farm Mines:

"Sir: You are hereby notified that in pursuance of the provisions of article XI, section 1, of the act of 15th May, 1893, relating to bituminous coal mines and providing for the lives, health, safety and welfare of persons employed therein, we the undersigned mine Inspectors upon notice from the Inspector in charge of this district, proceeded to the Hill Farm mine on Friday, September 13, and made an examination and full investigation thereof, and agreed in the opinion that there is immediate danger to the lives of the persons there employed, from the emission of noxious gases into the air current in such quantities as to be dangerous to life and health, for a distance of 500 feet more or less, at the outer end of manway leading into said mine, also from bad roof in slope, and from escaping steam. You are therefore notified to remedy such conditions forthwith, and make said mine in all respects safe and secure; and while doing so, you are not to allow any one to go or come through said manway and slope, or work therein, except for the purpose of making them safe."

Witness our hands this 21st day of September, 1895.

Chas. Conner, Mine Inspector Fifth Bituminous District.

Bernard Callaghan, Mine Inspector Ninth Bituminous District.

J. T. Evans, Mine Inspector Sixth Bituminous District.

Henry Louttit, Mine Inspector First Bituminous District.

The above notice had the desired effect, as a gang of men was at once put to work upon the manway to build new stoppings and repair the old ones, to prevent the escape of the noxious gases into the air current. So effectually has these stoppings accomplished the desired object, that the manway is now in such a healthful condition, that on a subsequent visit I gave permission for it to again be used as a traveling way by the persons employed in the mine in going to and from their work. Another gang of men was also put to work to retimber the slope and make it secure. This, however is quite a big undertaking which will require considerable time to accomplish. The work, however, is being prosecuted vigorously and a large gang of workmen are still engaged upon it. In the meantime no person is allowed to travel upon it except those engaged in making it safe. To secure the safety of the persons engaged in this work, I have instructed the superintendent to employ a competent person in each gang whose sole duty it shall be to watch while the others are at work, to see that no loose rock falls upon them.

The ventilation of the mine is in very fair condition. The lower workings were flooded with water from the Ferguson mine in the beginning of the year, an account of which is given in the description of that mine. The drainage is not good, the most of the hauling roads being sloppy and wet. The system of mining the coal is such that a squeeze is continually following the workings of the coal. This is due to the fact that pillars which were left to support the overlying strata which is about 700 to 800 feet thick are insufficient. Unless the system is changed, no better results can be expected in the future. I think I am safe in saying that not more than fifty per cent. of the coal seam has been recovered under past and present methods. The condition of the mine indicates incompetency in management, and unnecessary expense in operating. Mining boss, Matthew Herron.

Hurst. This mine is in very fair condition both as to ventilation and drainage. There is no second opening for escape, except by the furnace shaft. However, a place is being driven towards the outcrop of the coal for a second escape way which will soon be completed. When this is done, the mine will be complying with all the requirements of law. Mining boss, Jacob Houser.

Juniata. Operated by the Juniata Coke Company. This mine is in excellent condition throughout, and is well looked after. The gravity plane has been extended a distance of about 1,800 feet further, which has improved the hauling of the coal. Nothing is left undone that will promote the health and safety of the persons employed in the mine, not a single accident having occurred during the year. Mining boss, John D. Hayden.

Kyle.—This mine is also in excellent condition in every respect. Mining boss, I. W. Rickard.

Keystone.—Idle all year.

Leith.—This mine is in fair condition and is being improved as rapidly as possible. The developments of the headings had been neglected to some extent, and in consequence the working places were becoming exhausted, more rapidly than others were won out, thus cramping the mine for pit room, and making it difficult for the mine officials to maintain the production of the mine up to the requirements of the coke ovens. This, however, is now being rapidly remedied by taking advantage of the blowing out of 100 of the ovens, and the consequent diminished demand for coal, which enables the management to confine the mining of coal to the headings thereby permitting the development of new workings. The ventilation is good. During a part of the year the mine was not supplied with a sufficient volume of air to carry off the explosive gases which were generated, and standing gas was allowed to exist therein; especially was this the case where ribs were being drawn. On one of my visits I complained of this to the mine foreman, and requested him to have the ventilation conducted around these places in sufficient quantity so that it would sweep away the dangerous gases. He promptly acted upon my request and shortly afterwards that part of the mine was safe and well ventilated. An extension of the tail-rope system of haulage has been made in the workings of the mine for a distance of about 3,000 feet farther, thereby facilitating the hauling of coal. Mining boss, W. J. Callaghan.

Leisenring No. 1.—This mine is in its usual good condition in all respects. It will not suffer from lack of attention or incompetency on the part of the officers of the mine. Mining boss, George Roebuck.

Leisenring No. 2.—This mine has been considerably improved, and is now in fair condition. The drainage especially has been made very much better. A brick arch has been built at the shaft bottom for a distance of 75 feet on the dip side, and on the other side of shaft the timbers have been replaced by masonry walls on each side. On top of the walls, steel "I" beams have been placed which take the place of wooden beams. The shaft bottom is thus made secure by very strong and durable material. An extension of the tail-rope system of haulage has been made on the north flats for a distance of 3,700 feet, which enables them to haul the coal more economically and with greater dispatch. Mining boss, Charles Walters.

Leisenring No. 3.—The same report which was given of this mine last year, could very properly be given again for the present year, for practically the same conditions exist now as them, viz: That

large volumes of gas are found in the old or abandoned gobs, also in the gobs where ribs are now being worked, and the carefulness exercised on the part of the management only prevents accidents. They are to be commended for the skill, energy and attention with which they successfully contend against these great dangers.

I reiterate what I expressed last year with reference to these dangers, viz: That they should not be allowed to exist, as it has been demonstrated that they can be removed by bore-holes from the surface. And I further assert that no degree of vigilance in watching these dangers would be a valid excuse for neglecting to remove them. The law is very explicit on this subject. It says, "no accumulation of explosive gas shall be allowed to exist in the worked out or abandoned part of any mine when it is practical to remove it." (Article V, section 1.) The operator or owner of any mine therefore takes all the responsibility when he fails to adopt practical methods for removing such dangerous conditions.

The ventilation upon the whole is good as is also the drainage. Mining boss, Ed. O'Toole.

Lynn.—This mine is in good condition generally and is well looked after in every respect. Mining boss and superintendent, James Harding.

Laughead.—Everything is in good condition at this mine. One of the boilers burst during the year, injuring the superintendent and clerk who were sitting in the office at the time. They were painfully but not seriously injured. Mining boss and superintendent, John N. King.

Lemont No. 1.—This mine is now in better condition than it was when last reported, although there is still room for considerable improvement, especially in regard to ventilation. The volume of air entering the mine does not all reach the working places which shows that leakages are still permitted to exist. Explosive gas is evolved from the strata overlying the coal, and when the ribs are taken out, this gas escapes into the mine atmosphere in considerable volume; and great care has to be exercised to keep the mine in a safe condition. On one of my visits I found this gas down about 3 feet below the roof in one place where men were at work drawing a rib. I at once ordered the men to be withdrawn until the gas was removed. In my opinion the air currents in this mine are in the opposite directions to that in which they should be, as the tendency under the present direction, is to draw out the gas from the gob to where the men are at work. If the air current was reversed, the pressure of the air would tend to keep the gas back in the gob, and take it away from where the men are at work, thus securing greater safety to those employed in the mine. I have suggested to

the mine management that the air current be reversed as indicated above, and it is in contemplation to sink an air shaft and erect a large 25 foot fan, and force the air into, instead of exhausting it from the mine, as at present. If this is done, not only a greater volume of air will be put in circulation, but a more effective system of ventilation can be adopted which undoubtedly will give a greater degree of safety to both life and property.

A new air compressor plant has been built during the year, consisting of Corliss engines with direct acting valves, air cylinder 26 inches; steam cylinder 26 inches by 48 inch stroke, and a 20 foot fly wheel weighing 50,000 pounds. This compressor is to furnish compressed air to operate mine pumps at both No. 1 and No. 2 works, and also haulage engines in the mines. A large battery of boilers furnish steam for the engines. The whole plant is very powerful and complete, and is enclosed in a substantial brick building. Four mining bosses have had charge of the mine during the year, viz: James Hart, Matthew Herron, William West and John Nolan.

Lemont No. 2.—This mine is in excellent condition in all respects and is well looked after. A new sump was made in the lower workings, and the pumps were removed from their former station to one prepared for them near the new sump. At this new pumping station a bore hole has been drilled from the surface, through which the water will be pumped. The pumps are all operated by compressed air, and are capable of discharging large volumes of water. There were built during the year 50 new coke ovens, making a plant of 350 in all. Mining boss, Elias Phillips.

Morgan.—This is a small mine located near Salisbury, Somerset county. It has not worked steadily during the year and employs only a small number of men. Days worked, 125. Men employed, 10.

The mine has no artificial means of producing ventilation, but an air shaft has been sunk and a furnace will soon be built at the bottom of it. Although the mine depends upon natural means for ventilation it has not suffered in consequence, on account of the great difference in level of the mouth of drift and top of air shaft. At each visit I found an abundance of air in circulation. The drainage is also good, as is the general condition of the mine. Mining boss and superintendent, L. A. Morgan.

Morrell.—This mine is now in fair condition. During the year the headings were pushed, the object being to work to the boundary line and then work all the coal in coming back. Two headings only are now working, the others having reached the line. At the present rate of production this mine will be exhausted in from three to four years. The ventilation and drainage has been very much improved during the year. A large new pump has been put in the mine, and

the slope timbers have been either taken out or replaced by new ones and the loose rock has been taken down. Mining boss, John Yocum.

Mahoning.—This mine is now connected with the Atlas mine in such a manner that the two mines are practically one, and the description of it has been given in the account of that mine.

Mt. Braddock.—The workings of this mine have been confined to the development of the headings and the opening up of new work. Very little room work has been done, and no ribs have been drawn whatever. The object is to get to the lower boundary of the property and work the coal in coming back, on the retreating system. The ventilation is good and sufficient for the necessities of the mine, but owing to the imperfect stoppings, not more than half the quantity produced by the fan reaches the inside workings. The drainage is good, as is also the general condition of the mine where work is being done. The old part of the mine workings have been so completely spoiled as to be beyond redemption. Neither time, money nor talent could ever effect a remedy for them.

Seven new boilers have been added to the plant, and two artesian wells have been drilled to supply water for the coke ovens. Some very radical changes will be made during the coming year which include a new tipple and bin to hold coal for 300 new ovens which are to be built; and also the erection of large and powerful engines to haul coal from the slope, the grade of which will be reduced so that a larger number of cars can be hauled from the mine to supply the additional ovens with coal. Mining boss and superintendent, J. M. Franklin.

Mt. Hope.—This mine was formerly known as the Taylor mine, but its name was changed to the present one when a new opening was made, which went under a hill called "Mt. Hope." Twenty additional coke ovens were built during the year and the number of persons employed in the mine was increased so that a mine foreman had to be employed, to conform to the requirements of law. The mine is in fair condition generally, but has not yet furnished artificial means to produce ventilation. The superintendent was notified that he would be required to do so, and steps are being taken to build a furnace and sink an air shaft. Mining boss, George Armstrong.

Nellie.—The condition of this mine is such that there is no room for complaint. Everything is being done by the mine officials to have it at all times in good condition in all respects. Mining boss, David Young.

Nellie.—This mine is being rapidly driven towards the Statler mine belonging to the same owners, for the purpose of making connection with that mine, so that the two mines can be ventilated by the same

furnace, and thereby virtually make one mine out of the two. The railroads in the mine will be so arranged that coal can be hauled from each mine through the other if desired. The drainage is good, but the ventilation was defective; when, however, connection is made with the Statler mine, it will be very much improved. About 1,000 feet has yet to be driven, but as the work is being done from each mine, only 500 feet will be required by each set of workmen to enable connection to be made. Mining boss, Archie Cochran.

Oliphant.—The condition of this mine at each visit was such as to deserve commendation. The mine foreman takes pride in his work and keeps everything in such neat trim with reference to the condition of the tracks and drainage, as well as the ventilation (which latter he has very much improved by judicious and intelligent changes) that it is more a pleasure than a duty to visit the mine. A new manway has been made during the year which has improved the means of ingress and egress to the workings of the mine. Mining boss, Edward Mooney.

Oliver No. 1.—Operated by the Oliver Coke and Furnace Company. This is a very extensive mine, which generates explosive gases very freely and consequently great watchfulness on the part of the mine officials is necessary to prevent accidents, and I must commend them for the faithful and efficient manner in which they have so successfully managed the difficult conditions they have had to contend with. Every known precaution, and the most approved methods have been adopted, which, with rigid discipline has enabled them thus far in the operation of the mine to be exempt from accidents from this source. Particular care is given to the conducting of the air currents up to and around the working places, and to this end, each section of the mine is ventilated by distinct splits of air, which is again returned into main return airways which carries the air direct to the outlet, and has no connection whatever with any traveling or hauling road. Very little leakage of air is permitted, as most of the stoppings are built of masonry. Very few doors are used in the mine. There is no mine in the district in which a greater percentage of the air produced by the ventilating apparatus is distributed around the roadways and working places, than in this one.

A new endless rope system of haulage has been put in operation which works very successfully, and gives better results than were even anticipated. The drainage and general condition of the mine is good. Mining boss, C. B. Ross.

Oliver No. 2.—This is connected with, and is simply a part of No. 1, and the same may be said of this as was said of No. 1, except that from this mine a pair of headings are being driven to meet two headings which are being driven from the outcrop of the coal. The

distance to be driven is about 3,500 feet. When these headings are completed it is intended to erect a large Capell fan with a capacity of about 400,000 cubic feet per minute. Mining boss, Albert Williams.

Paul.—This mine is in good condition and is well looked after. A large sump is being made at the dip of the workings, and a pumping station is being made near to where a bore hole from the surface has been drilled. A large air compressor plant will be erected near the present location of boilers which supply the steam to the pumps now in operation in the mine. When this is completed a pipe line will conduct the compressed air down to the new pumping station (a distance of 3,000 feet). The pumps will then be moved, and water pumped through bore holes to the surface. Mining boss, Robert Nelson.

Percy.—This mine has not been worked very extensively during the year, owing to the death of the person who owned the coal property which the company had leased. The conditions of the lease were such that at the owner's death the lease terminated. The bulk of the mining operations being upon this property, when the lease expired it crippled the production very materially and compelled the company to depend upon the ribs and other small quantities of coal upon their own property for their future supply. As these were somewhat difficult to reach and considerable new developments had to be made, the operations were limited. The general condition of the mine is good both as to ventilation and drainage. Mining boss, Everhart Shipley.

Pine Hill.—Mine idle all the year.

Redstone.—On one of my visits to this mine I found that in one part of it where ribs were being drawn, the air current was unduly mixed with black-damp, and was being carried around with it to such an extent that by the time it arrived at the inner end of that part of the mine, it was so impure that it nearly extinguished the lights. I suggested that some means be adopted to remedy this condition of things. It has now been very much improved by driving an airway into the Oliphant mine adjoining which belongs to the same company, thus allowing a split of air to be taken into this part of the mine, and returned through the Oliphant mine. By doing this the pressure of air is against the black-damp, and tends to keep it away from the men, and back into the gob, instead of it being drawn out from there and mixing with the air current and being carried around where the men would have to breathe it. This has very much improved both the quality and quantity of the atmosphere in that part of the mine. In another part where the headings are being developed, the air current was not vigorous enough to move

the anemometer, and I could not get a measurement of the quantity in circulation. This is a very extensive mine and the distance the air has to travel is very great, consequently the frictional resistance which the ventilating power has to overcome is also great. The air is also caused to travel into so many different headings, and so many doors are used, and the leakage is so great, that a strong current of air at the far end of the mine is impossible. The ventilating power has about reached its limit and unless some power is added to it, or less work given the fan, no better results can be expected in the future. The drainage and other conditions of the mine are good. Mining boss, Elijah Parker.

Stewart.—This mine is in good condition in all respects and is well taken care of by the mine officers. A new tipple and bin were erected during the year, also a new reservoir was dug and a bore-hole for water drilled, thereby securing a supply of water for the coke ovens all the year. Mining boss, Isaac G. Roby.

Sniders.—This small mine is confined to the production of coal for domestic consumption in the town of Uniontown, and only for about four or five months does it employ men sufficient to bring it under the provisions of the law. It is generally in good condition both as to ventilation and drainage. Mining boss, Robert Wilson.

Smock Nos. 1 and 2.—At No. 1 mine a new fan was built which gives good results. It puts in circulation an abundant supply of air which is well conducted around the working places. Drainage and other conditions are good. No. 2 mine does not employ more than 9 men and is therefore not under the requirements of the law. Mining boss, Benjamin Holliday.

Statler.—A new furnace was built at the bottom of an air shaft during the year which gives an abundance of air for the mine. Before this was done however, compulsion had to be used, as a suit had to be entered against the operator for violation of the mining law. He then got a hustle on and made the above improvements in a hurry before his case came up in court. When he had completed them and complied with the provisions of law, I withdrew the suit on payment of the costs by him. Mine in other respects is in a good condition. Mining boss, Orlando Flesher.

Shaws.—This mine is now in excellent condition both as to drainage and ventilation, especially the latter. A 20 foot Guibal fan has been built during the year which gives an abundant supply of air to the mine. Before the fan was in operation, in a great many places in the mine I could not get a measurement so feeble was the current, and the greatest volume I could get at any place in the mine was 7,200 cubic feet per minute. Even at the furnace where the total quantity passes out, I measured 39,300 cubic feet

only. On visiting the mine after the fan was in operation I measured a volume of 14,400 cubic feet at the extreme end of the workings in the mine, while at other points the volume was 54,000 and 70,200 cubic feet per minute, and the total volume at fan was 116,000 as against 39,300 produced by the furnace. This is a striking illustration of the superiority of fan over furnace ventilation in shallow mines, as the fan produces nearly three times the quantity that the furnace puts in circulation under precisely the same conditions. On the left side of main gangway a large territory of workings which has not been worked for a number of years had been allowed to fill up with water. This water has been pumped out and the coal is now being worked. The water is pumped out by a pump worked by horse power. A bore-hole has been drilled near the fan which supplies the boilers with water. This is not only the largest, but it is the best equipped and best looked after mine in Somerset county. Mining boss, James Phillips.

Shaws Grassy Run.—This mine is now exhausted, having run a few months only at the beginning of the year to finish up the few pillars left in the mine. Mining boss, William K. Murray.

Standard.—This mine has not been worked much during the year, and only employed seven men, so that it did not come under the requirements of the law.

Tub Mill Run.—This mine has not run half time during the year, and was idle each time I visited it. There has been no artificial means furnished to produce ventilation. I found, however, on each visit a good volume of air entering the mine, but how it was conducted around the workings I could not tell as I did not go inside, from the fact that the mine was idle and no person was inside. Mining boss, John Rees.

Thomas.—For a considerable part of the year the ventilation in this mine was not very good, owing to the return airway having fallen which almost closed it up. A heading was being driven which would make connection with another opening, and when this had been put through, the ventilation was very much improved. Still, however, there is room for further improvement, as nature is the only agency at work in furnishing the ventilation. An air shaft is to be sunk and a furnace built in the near future to comply with the law. Mining boss and superintendent, Benjamin Thomas.

Trotter.—This mine is in good condition and is well looked after. The main haulage rope has been extended 2,100 feet during the year. A new branch rope haulage road is being prepared which will be put in operation during this year. Mining boss, James Hart.

Uniondale.—Idle all the year.

Victoria.—This mine is in bad condition both as to ventilation and drainage, and also in every other respect. It is the worst mine in the

district. There is no system of working the coal, or conducting the ventilation, or as far as appearances goes, of doing anything else. On visiting the mine I found the miners working ahead of the air current in an atmosphere of smoke, so thick that it could almost have been cut with a knife. There was not a cut-through in one of the rooms, and hardly a brattice in the mine, and to crown all, there was a pump in the main dip heading, exhausting its steam into the atmosphere. Such a terrible condition of affairs I never witnessed in all my experience of mining. What air there was, was intensely hot and stifling. How men could, or would work in such a place is beyond comprehension. I at once gave the mine foreman the following written notice: "You will build stoppings between intake and return airways. You will at once stop all persons from working ahead of the air current, and make cut-throughs in every room pillar. You will carry exhaust steam from pump into return airway in such a manner that it will not travel in the air current where persons are at work in the mine. I expect to hear from you in 10 days that the above suggestions have been carried out." This had the desired effect. At the expiration of the time specified I received word that all the suggestions had been acted upon, except the cut-throughs, and that they were working at them with a double force. Mining boss, Allan Champ.

Wynn.—This mine is in fair condition both as to drainage and ventilation. Mining boss, Henry M. Wilson.

Wheeler.—This mine is in good condition, the workings are about all worked up to the boundary line and about two or three years will exhaust it entirely. Mining boss, David P. Brown.

Washington.—This mine is in excellent condition in every respect. An abundant supply of air is distributed throughout the working places of the mine, and the safety of the persons employed is looked after carefully. The system of working the rooms has been changed during the year. Formerly they were worked on the face of the coal across the hill. Now they are worked up the hill on the butt of the coal. The advantage claimed for this method over the other is, 1st, The hauling of the coal is much easier on the mules, and more can be hauled owing to the hauling being done on level roads, instead of on steep grades. 2d, the miners can dig more coal. 3d, the ribs can be recovered better and safer. All of these claims have been substantiated by the results which have followed the adoption of the new system.

Developments are now being made to the dip of the shaft, where the large body of coal property lies. A main dip heading is being driven, which will be used as a rope haulage way. On each side of this main heading and parallel with it, are driven two other head-

ings to be used as a manway, and main return airway respectively. At right angles to, and at distances of about 4,000 feet apart, will be turned two cross headings or flats on each side of main dip heading. From these flats the rooms will be turned up the hill on the butt of the coal. The manway and main heading will be used as intakes for the air current, which will be returned by the use of overcasts into main return airway from each pair of flats. As the workings extend into the basin, explosive gas may be expected. Mining boss, George Santimeyer.

Walker.—This mine is in good condition both as to ventilation and drainage. A new furnace has been built and is doing good work. This is another of the places where suit had to be entered before artificial means of producing ventilation could be secured, and like the others, the suits were withdrawn on payment of costs after they had complied with the law. Mining boss, Robert Easton.

Yoder.—This place has not done much during the year and has not at any time employed enough men to bring it under the provisions of the law. It has no artificial means of producing ventilation, and is not in very good condition in other respects, but not being under the requirements of the law it cannot be reached nor can the operator be compelled to improve its condition. No mining boss.

Youngstown.—This mine is in fairly good condition, both as to ventilation and drainage. The air current has been changed. Formerly the slope was an outlet and necessitated the use of a door on the mouth of it. The opening of this door to allow the trips to pass through, interfered with the ventilation very materially. To overcome this difficulty, an overcast was made over the slope, and mainway was made the return airway, the slope thus becoming one of the inlets. This change has improved the ventilation very much, and allowed a better distribution of the air around the working places in the mine. Part of this mine has very bad roof, which causes a great deal of trouble and expense, as well as being a source of danger. Gas is also given off freely where this bad roof exists. Both dangerous conditions are being carefully watched. Mining boss, James Exton.

Description of Fatal Accidents.

George W. Spalding. He was dumping coal on the tipple of No. 2 shaft of the Oliver Coke and Furnace Company on January 3, 1895, in company with his brother Harry Spalding, and a man named William Morris. The headframe, bins, etc., of No. 2 shaft were in course of construction at the time, and temporary bins had been made to enable the coal to be dumped into the charging larries. The coal was being hoisted from the shaft on one cage only, a back balance

being on the other rope. The wagons containing the coal were put on this cage at the bottom of the shaft, which on arriving at the top were landed on "keeps." The mine wagons were then pushed off the cage by the deceased (the other two persons pulling it at the front end), and dumped into the bin, when the empty wagons were returned on to the cage again, the deceased would then walk backwards in front of the wagon and pull it across over on the cage again, which would remain on the "keeps" until the empty wagon was again placed on it, and the signal given to the engineer when it would be lowered into the shaft for another loaded car. While engaged in dumping a car in this manner, the cage was raised up off the "keeps," about 4 feet above the level of the platform. The men were unaware of this fact, and on returning with the empty wagon in the usual manner, instead of stepping on the cage as he expected, he stepped under it, and into the open shaft. The other two men still pushing at the wagon, not noticing that the cage had been moved, pushed the wagon also into the shaft, and very narrowly escaped being dragged with it. Spalding fell down the shaft a distance of 400 feet, the wagon following him, killing him instantly. Who was to blame for the cage being raised from the "keeps," cannot be decided with certainty as the engineer claimed that he received the usual signal, while the man at the bottom of the shaft said that no signal was given from below. It is therefore simply a question of veracity between these men, with the circumstantial evidence in favor of the engineer.

Robert Donaldson, mine foreman, was instantly killed on January 18, by being caught between loaded and empty trips of cars on the side track in Wynn mine, belonging to the H. C. Frick Coke Company. The accident occurred in the following manner:

The person who was usually employed as latcher and whose duty it was to send trips from the various side tracks in the mine and tend the switches on the slope, was sent by the mine foreman to help one of the drivers to break in a new mule, and while at that work, the mine foreman had given instructions to each of the other drivers, to send out their trips, and turn the switches at their respective side-tracks until the regular latcher should return to his duty. This had been done for two days. On the third day the driver of the upper side track had sent out a loaded trip of cars and forgot to turn the switches on the slope, and loaded track, and he pulled up some more loaded cars on the loaded track of lay off. A few minutes afterwards Donaldson came to the side track and wrote a note which directed that the pumper should be sent into the mine to fix up the pump, and he proceeded to tack this note on the front end of the first loaded car standing on the side track, he being ignorant of

the fact that the switches had never been turned. While thus engaged the empty trip came down the slope and dashed into the side track at full speed, catching him between the cars, and crushing his head in such a manner that death must have been instantaneous. He was a Scotchman, 46 years of age, and a very intelligent and experienced mine foreman. He left a wife and three children to mourn his loss. His wife never recovered from the shock caused by his death, and five months afterwards was buried beside her husband, leaving three children bereft of both parents. The children were adopted and taken care of by relatives of the parents.

William J. Callaghan, Jr., aged 13 years, was fatally injured in the Trotter mine on February 8. The deceased was employed in the capacity of lamp carrier, that is, he took the safety lamps which had become extinguished, to the lighting station, and on their being relighted carried them back to the landings for redistribution. While at the landing he went back to where the "bull wheel" is located in a timber frame, and covered over with boards; he stepped on these boards one of which broke allowing his foot and leg to be caught in the revolving wheel. His leg was cut off, and he received other injuries of such serious character that he died a few hours after being taken home.

Peter Hoey, aged 35 years, was run over by a loaded trip of cars on March 11, while at work in Morrell slope belonging to the Cambria Iron Company. The deceased was employed on the slope to keep the rollers oiled and repaired, also to keep the tracks clean. While engaged in renewing a roller, he did not get out of the way soon enough to allow the trip to pass him, and was caught by the wagons and run over. His right leg was cut off and he was injured internally. Hoey after being injured managed to crawl to a shelter hole and remained there for a considerable time before any assistance came to him, from the fact that no persons are allowed to travel on the slope, and when at last he was missed and searched for, he was very weak from loss of blood, and was unconscious. He was at once taken to his home and cared for, but died two days afterwards. Hoey had plenty of room to have gotten out of the way of the cars, as the slope has a double track for its entire length, and right at the place where he was working was a shelter hole. He left a widow and four children.

William Watt, 13 years old, was instantly killed on the coke ovens at Oliver No. 1 mine on March 13. Watt was driving the mule that hauls the larry on the single block of coke ovens, and was sitting on the front part of the empty larry. The mule had lost a shoe on some of his previous trips, and in jumping off the larry to get this mule shoe, he tripped and fell with his head on the rail, the larry be-

ing still in motion, and the wheel ran over his head crushing it into a jelly causing instant death.

August Bitner, age 23, kas also killed on the coke ovens by being run over by the charging larry on April 1, at the Redstone mine. The deceased was employed as a charger and was on a trip of larries which were being pushed in front of a locomotive. The larries were to be transferred to another track and Bitner jumped off to throw the switch, and while running in front of the larries he tripped and fell, and was run over, receiving serious injuries, from the effects of which he died the next day. He left a wife to whom he had been married only a few weeks.

William K. Smith (colored), aged 21 years, was employed as a driver in the Paul mine belonging to W. J. Rainey. While engaged at work on the 9th of April he was caught between a mine wagon and rib, and received severe internal injuries. Both legs were broken. The deceased while coming out with a trip of cars had not put in a sufficient number of sprags to keep his cars under control, they therefore ran down the grade at great speed. In attempting to get off the trip for the purpose of putting in additional sprags, he was crushed between the rib and cars, and thrown in between two of the wagons and carried out by the trip on the coupling and bumpers to the side track. He was sent to the Cottage Hospital on the 10th and died on the 11th. He had the reputation of being a very daring and reckless driver, and no doubt his death can be attributed to his want of care in not taking ordinary precaution, to carry out the instructions of the mine foreman, with reference to putting in a sufficient number of sprags to be able always to keep the trips under full control at all points on the hauling road.

Andy Slamor, Hungarian, age 29 years, was employed as a miner at Lemont No. 2 mine, owned by the McClure Coke Company. On April 20 he was working on a rib, and at quitting time he started to draw out his posts preparatory to making a fall, and succeeded in getting them all out behind the "break row," except two, which he had left in to steady the roof while he was drawing out the others, expecting that the roof would break them, and fall over them. This did not occur, and in order to get a fall, he ventured behind the "break row" and commenced to take out one of the two posts and while doing so, the roof fell upon him, covering him with slate and coal and it took several hours to recover the body. Death was instantaneous.

John Carroll, age 20, a driver employed at No. 1, Leisenring, was instantly killed in that mine on July 15, by a fall of rock on the landing. It appeared that Carroll had brought a trip of loaded cars on to the landing, and when he was walking back behind his mule to get

a trip of empty cars, he passed under a set of cross timbers, which suddenly broke, and a large piece of rock, weighing several tons fell upon him, crushing his life out like a flash. The timber had been in place for years, and when examined was found to be decayed clear through, and could not support the weight of the loose rock above it, and very unfortunately collapsed when the deceased was under it.

Joseph Lucknick, age 45, a miner, was engaged in drawing out posts in a rib in Leisenring No. 2 mine on July 26, when the roof suddenly fell and buried him under the falling coal and slate, killing him instantly. It was several hours before his body was recovered, and when found it was in a terribly mangled condition. He left a wife and four children.

George Smith, age 25 years, employed in Leisenring No. 1 mine as a driver. On the 10th of September while coming out with a loaded trip of cars, he fell from the front of his trip and was run over by the wagons. Smith not coming to the shaft with his trip at the usual time, along with the other drivers, one of them went back to ascertain the reason of the delay, and found him dead under the first car. He left a wife and one child.

Thomas J. Hooper, age 54 years, mine foreman at Leith shaft, on September 26, when engaged in putting a wagon on the track, received such serious injuries that death resulted four days afterwards. The trip of loaded wagons had been wrecked (the coal being hauled by the tail rope system) and Hooper had placed pieces of wood rail under the wheels of one of the cars, so that the rope could pull it on the track. The signal was given to the engineer and Hooper stood beside the car to push it on the track while the rope was pulling it. When the car started on to the pieces of wood rail, the latter twisted round in such a manner that Hooper was struck on the legs by it, causing him to trip, and he fell between the cars which forced him to the ground and pushed him along in front of them for a considerable distance before the engine could be stopped. Five of his ribs were broken, and he was otherwise injured internally. Hooper was an Englishman, and a very competent and capable mine foreman. He was a graduate of the South Kensington Science and Art School of Mines, England, and was one of the best informed men on mining, either theoretical or practical in this district. He left a wife and seven children, all of whom are grown up, to mourn his loss.

John Shepac, Slav, age 40 years, was employed as a miner in Lemont No. 2 mine. Deceased was working with another man drawing out ribs. The place where they were working was just about finished and they were loading their last car preparatory to drawing out

the posts and making a fall. The place was well posted, and seemed to all appearance to be perfectly secure, but suddenly without any warning the whole thing collapsed. The men made a rush to get out, but only one of them succeeded in doing so, and that almost by the skin of his teeth, so to speak, as the falling rock struck him on the back severely injuring him. Shepac, however, was less fortunate, as he was buried under the mass of rock and instantly killed. It took about 12 hours to remove sufficient rock to recover the body. There must have been about 200 tons of rock fell. On investigation it was discovered that the mass of rock was cut around by slips in such a manner that they all met at the top forming a wedge, which was resting entirely on the posts, and a small stump of coal. When the stumps were removed the posts were unable to support the pressure, hence the sudden collapse.

Noticeable among the improvements made by coke companies during the year 1895 is the building of an air compressor plant by the McClure Coke Company at their Lemont Works near Uniontown. This is the only complete and exclusive air plant in the coke region, and was projected to supply the power necessary for all pumps and inside haulage engines in Lemonts No. 1 and No. 2, which are adjacent mines. Some difficulty is at present experienced in the use of compressed air for running mine pumps, but when the matter is better understood, its use will become more general. In this case its use became necessary because the mines have advanced beyond effective boiler pressure. Both Lemonts are slope mines, the face of these slopes are each 4,000 feet from the pit mouth, and the compressor buildings are located about midway between the slopes.

The buildings consist of an engine house 28x52 feet, boiler house 37x54 feet, and stack, all of brick. They were designed for the purpose required, and are neat and attractive in appearance. The foundations are walls two feet thick laid in cement. The building walls are 13 inches with pilasters and corners 17 inches thick. The roofs are designed to withstand the violent mountain storms which prevail in this vicinity, and are built after the hip-truss pattern, so framed and bolted that all must go together, or none. The stack is a massive structure in itself and stands 89½ feet above top of foundation; base 12 feet square and 18 feet high, pedestal is octagonal in shape, 10½ feet in diameter at the bottom, tapering upwards with a batter of ¼ inch per foot on all sides; flue 5 feet 6 inches in diameter. Eighty-one thousand three hundred brick were required to build it, and 65 cubic yards of stone in foundations all laid in cement mortar. Great trouble has sometimes been experienced by the cracking and falling apart of stack walls. To avoid this danger the diameter was in-

creased to admit of a 3 inch air chamber, separated from the main flue by a 4 inch fire brick wall. This wall is tied into main stack at intervals of about 18 inches, in order to make it a stable structure. Ports open to the outside near the bottom, and a draught of cooling air circulates around the superheated portion and enters the main flue near the top.

The boiler plant consists of four steel tubular boilers 66 inches in diameter and 16 feet long, erected and connected as one battery, but so arranged that one or more can be blown out or taken away without interfering with the others. Three boilers do the work, but the four are generally in use because of the light firing which is required to keep up a regular pressure of 100 pounds with the compressor running 54 revolutions per minute.

The coal used per day is 325 bushels against 640 bushels required by the two steam plants which formerly did the work. The coal is furnished to these boilers by extending a trestle from the end of No. 1 ovens about 100 feet to the boiler house and dumping direct from the larrie into specially constructed bins in front of the boilers.

In projecting this plant it was decided to adopt such machinery and material as would make it first class in every respect. The compressor built by "Philadelphia Engineering Company" was selected because of the positive driven inlet and outlet valves, and "Corliss engines." The compressor is 26 inches duplex with 24x48 inch engines. Area of inlet valves 38.5 inches—area of outlet valves 27.4 inches; main shaft diameter, 14 inches; fly-wheel, 20 feet in diameter, weighing 25½ tons; total length of engines out, to out, 40 feet; total weight 78 tons.

This massive piece of machinery rests on a solid foundation 34x18 feet and 13 feet deep, containing 218 cubic yards stone masonry. The work performed at present time is the running of nine pumps as follows:

No. 1 Mine.—Main 6 inch service line 3,700 feet to main pumping station, with 26x12x48 inch Yough pump lifting 327 feet through a 10 inch bore hole; branch 3 inch line 1,200 feet to dip sump with 16x8x16 inch pump lifting 60 feet; branch 1½ inch line 1,200 feet to dip headings with 10x5x10 inch pump lifting 50 feet.

No. 2 Mines.—Branch 3 inch service line 700 feet to upper pumping station with 20x8x30 inch pump lifting 89 feet through an 8 inch bore hole; main 6 inch service line 2,250 feet to main pumping station with one 30x12x36 inch and one 24x10x30 inch Yough pumps lifting 320 feet through a 10 inch bore hole; branch 2 inch line 1,000 feet north to dips with one 12x7x12 inch pump lifting 47 feet; branch 3 inch line 2,300 feet to south slope with one 12x7x12 inch pump lifting 54 feet; branch 2 inch line 800 feet to "H" flat with 6x4x6 inch

pump lifting 38 feet. To these we expect to add one large pump in No. 1 mine, lifting 450 feet with numerous small ones in both mines, also a dip haulage engine in each.

The Philadelphia Engineering Company can determine to a certainty inside of two years what load their compressor will carry. The gauge in engine room shows 55 pounds, and at No. 1 pumping station shows 52 pounds, a loss of but 3 pounds in 3,800 feet. From present indications, all that will be required is volume.

This plant was erected between June and October, 1895, cost $25,000, and is well worth a visit from those interested in mines.

J. P. BRENNEN,
General Superintendent.
A. H. BOWMAN,
Chief Engineer.

TABLE 1.—*Showing location, etc., of collieries in the Fifth Bituminous Mine District.*

Name of Colliery.	Name of Operator.	Location—County.	Name of Superintendent.	Postoffice Address.
Atlas,	Cambria Iron Company,	Fayette,	Martin Meagher,	Connellsville.
Anchor,	Atchison Coke Company,	Fayette,	William Duncan,	Dunbar.
Bessie,	Lynn Coal Company,	Fayette,	George Whyel,	Perryopolis.
Buffalo,	Buffalo Coal and Coke Company,	Somerset,	W. F. Childs,	Meyersdale.
Berlin,	John O. Stoner,	Somerset,	Neven Long,	Berlin.
Casselman,	Casselman Coal Company,	Somerset,	W. G. Hocking,	Meyersdale.
Cumberland,	Cumberland and Summit Coal & Coke C.,	Somerset,	Fred. Rowe,	Meyersdale.
Clarissa,	James Cochrans, Sons & Co.,	Fayette,	P. G. Cochran,	Vanderbilt.
Chester,	E. A. Humphries & Co.,	Fayette,	R. J. Humphries,	Vance's Mill.
Crossland,	The Atlas Coke Company,	Fayette,	James Henderson,	Uniontown.
Cheat Haven,	Cheat Haven Coal Company,	Fayette,	Christian Echard,	Cheat Haven.
Edna,	Connellsville and Ursina Coal and Coke C.,	Somerset,	E. H. Reid,	Scottdale.
Elm Grove,	W. J. Rainey,	Fayette,	T. J. Mitchell,	Vanderbilt.
Fairchance,	H. C. Frick Coke Company,	Fayette,	George B. Irvine,	Fairchance.
Ferguson,	Dunbar Furnace Company,	Fayette,	Robert Lang, Sr.,	Dunbar.
Fairview,	Fairview Coal Company,	Somerset,	Thomas Rees,	Meyersdale.
Grindstone,	Redstone Oil, Coal and Coke Company,	Fayette,	William Gillie,	Grindstone.
Great Bluff,	E. A. Humphries & Co.,	Fayette,	A. E. Humphries,	Dunbar.
Grassy Run,	Grassy Run Coal Company,	Somerset,	John Meagher,	Elk Lick.
Hamilton,	Mrs. Charlotte Cochran,	Somerset,		Elk Lick.
Hocking,	Chapman & Hocking Coal Company,	Somerset,	John T. Hocking,	Meyersdale.
Hill Farm,	Dunbar Furnace Company,	Fayette,	Robert Lang, Sr.,	Dunbar.
Hurst,	Hurst & Co.,	Fayette,	S. C. Hurst,	Smock.
Juniata,	Juniata Coke Company,	Fayette,	Adam Nicholson,	Juniataville.
Kyle,	H. C. Frick Coke Company,	Fayette,	S. Reisinger,	Fairchance.
Keystone,	Keystone Coke Company,	Somerset,	E. J. Weld,	Meyersdale.
Leith,	H. C. Frick Coke Co.,	Fayette,	Harry Whyel,	Uniontown.
Leisenring No. 1,	H. C. Frick Coke Co.,	Fayette,	John A. Esser,	Leisenring.
Leisenring No. 2,	H. C. Frick Coke Co,	Fayette	E. A. Humphries,	West Leisenring.
Leisenring No. 3,	H. C. Frick Coke Co,	Fayette,	Austin King,	Leisenring.
Lynn,	Hanna Brothers,	Fayette,	James Harding,	Brownsville.
Laughead,	Martin Coke Company,	Fayette,	John N. King,	Fairchance.
Lemont No. 1,	McClure Coke Company,	Fayette,	M. H. Kerr,	Lemont Furnace.
Lemont No. 2,	McClure Coke Company,	Fayette,	M. H. Kerr,	Lemont Furnace.
Morgan,	Duncombe & Morgan,	Somerset,	L. A. Morgan,	Meyersdale.
Morrell,	Cambria Iron Company,	Fayette,	Martin Meagher,	Connellsville.
Mahoning,	Cambria Iron Company,	Fayette,	Martin Meagher,	Connellsville.
Mt. Braddock,	W. J. Rainey,	Fayette,	J. M. Franklin,	Mt. Braddock.
Mt. Hope,	Isaac Taylor & Co.,	Fayette,	Isaac Taylor,	Dunbar.
Nellie,	Brown & Cochran,	Fayette,	J. R. Laughrey,	Dawson.
Nellie,	E. Statler,	Somerset,	E. Statler,	Elk Lick.
Oliphant,	H. C. Frick Coke Co.,	Fayette,	C. C. Gadd,	Oliphant Furnace.
Oliver No. 1,	Oliver Coke and Furnace Company,	Fayette,	Fred. C. Keighley,	Uniontown.
Oliver No. 2,	Oliver Coke and Furnace Company,	Fayette,	Fred. C. Keighley,	Uniontown.

Paul,	W. J. Rainey,	Fayette,	T. J. Mitchell,	Vanderbilt.
Percy,	Percy Mining Company,	Fayette,	Louis de Saulles,	Percy.
Pine Hill,	S. Coleman & Sons,	Somerset,	Frank S. Coleman,	Pine Hill.
Redstone,	H. C. Frick Coke Co.,	Fayette,	Leo Bullion,	Brownfield.
Stewart,	Stewart Iron Company, Limited,	Fayette,	Samuel McClure,	Sharon.
Snider,	John Snider,	Fayette,	John Snider,	Uniontown.
Smock No. 1,	J. D. Boyd Coal Co.,	Fayette,	W. H. Boyd,	Smock.
Smock No. 2,	J. D. Boyd Coal Co.,	Fayette,	W. H. Boyd,	Smock.
Statler,	E. Statler & Sons,	Somerset,	E. Statler,	Elk Lick.
Shaws',	Cumberland and Elk Lick Coal Company,	Somerset,	A. Chamberlain,	Meyersdale.
Shaws' Grassy Run,	Cumberland and Elk Lick Coal Company,	Somerset,	A. Chamberlain,	Meyersdale.
Standard,	Berlin Mining Company,	Somerset,		Berlin.
Tub Mill Run,	Fairview Coal Company,	Somerset,	Thomas Rees,	Meyersdale.
Thomas,	Benjamin Thomas,	Somerset,	Benjamin Thomas,	Meyersdale.
Trotter,	H. C. Frick Coke Company,	Fayette,	John Sneddon,	New Haven.
Uniondale,	Reid Brothers,	Fayette,	R. B. Reid,	Dunbar.
Victoria,	Luce & Baugh Coal Company,	Fayette,	Isaac Baugh,	Perryopolis.
Wynn,	H. C. Frick Coke Company,	Fayette,	J. S. Atkinson,	Oliphant Furnace.
Wheeler,	Cambria Iron Company,	Fayette,	Martin Meagher,	Connellsville.
Washington,	Washington Coal and Coke Company,	Fayette,	J. S. Newmeyer,	Dawson.
Walker,	George K. Walker & Co.,	Somerset,	George K. Walker,	Elk Lick.
Yoder,	Cumberland Coal and Mining Company,	Somerset,	Port Hirsh,	Coal Run.
Youngstown,	H. C. Frick Coke Company,	Fayette,	C. M. Shank,	Lemont Furnace.

TABLE NO. 2.—*Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, etc., in the Fifth Bituminous Mining District for the year ending December 31, 1895.*

Names of Collieries.	Location—County.	Total production in tons of coal.	Total production in tons of coke.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Number coke ovens.
Atlas	Fayette	80,195	54,912	.....	310	82	.....	.....	.....	5	7	.....	80
Anchor	Fayette	70,146	51,429	.....	290	101	.....	1	.....	5	8	.....	100
Bessie	Fayette	21,000	.....	21,000	180	51	.....	.....	250	1	2	.....	.....
*Buffalo	Somerset	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Berlin	Somerset	10,243	.....	8,695	173	17	.....	.....	82	.....	2	.....	.....
Casselman	Somerset	25,000	.....	.....	300	34	.....	.....	250	2	5	.....	.....
Cumberland	Somerset	59,400	1,600	57,000	287	89	.....	.....	685	.....	6	.....	10
Clarissa	Fayette	65,195	48 711	.....	293	89	.....	1	.....	.....	4	.....	108
Chester	Fayette	33,669	25,253	.....	285	45	.....	.....	75	3	4	.....	40
Crossland	Fayette	79,137	53,759	.....	310	95	.....	1	2	1	9	.....	100
Cheat Haven	Fayette	16,501	.....	16,496	240	23	.....	.....	130	.....	4	.....	.....
Edna	Somerset	576	.....	213	72	2	.....	.....	.....	.....	1	.....	.....
Elm Grove	Fayette	25,000	16,600	.....	275	60	.....	.....	.....	3	5	.....	162
Fairchance	Fayette	103,900	63,600	.....	292	150	.....	.....	50	3	14	.....	142
Ferguson	Fayette	28,349	13,937	2 005	304	34	.....	1	.....	2	6	.....	70
Fairview	Somerset	51,065	.....	51,065	164	91	.....	.....	791	.....	8	.....	.....
*Grindstone	Fayette	.....	.....	.....	.....	3	.....	.....	.....	3	.....	.....	.....
Great Bluff	Fayette	2,287	1,600	.....	63	18	.....	.....	.....	1	3	.....	16
Grassy Run	Somerset	16,350	.....	16,350	169	31	.....	1	164	.....	3	.....	.....
Hamilton	Somerset	5,000	.....	5,000	180	10	.....	.....	80	1	.....	.....	.....
Hocking	Somerset	41,275	.....	41,275	168	59	.....	.....	400	.....	4	.....	.....
Hill Farm	Fayette	93,364	58,387	213	293	122	.....	4	.....	2	11	.....	150
Hurst	Fayette	25,000	.....	24,500	250	45	.....	.....	100	1	3	.....	.....
Juniata	Fayette	160,142	120,408	.....	283	213	.....	.....	.....	5	15	1	250
Kyle	Fayette	108,930	72,600	.....	283	142	.....	1	.....	2	21	.....	161
*Keystone	Somerset	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Leith,	Fayette,	265,200	176,800	.....	189	324	1	2	.....	9	22	1	360
Leisenring No. 1,	Fayette,	423,300	282,200	.....	286	444	2	1	.....	10	48	1	500
Leisenring No. 2,	Fayette,	386,400	257,600	.....	285	475	1	10	.....	10	40	2	500
Leisenring No. 3,	Fayette,	360,600	280,400	.....	282	379	.....	5	.....	9	42	2	501
Lynn,	Fayette,	14,774	.....	14,974	115	34	.....	.....	.....	.....	4	.....	.....
Laughead,	Fayette,	49,124	27,118	.....	298	60	.....	3	.....	2	4	.....	50
Lemont No. 1,	Fayette,	145,000	89,024	.....	285	218	.....	3	.....	7	20	.....	227
Lemont No. 2,	Fayette,	208,000	137,130	.....	283	380	2	6	.....	8	27	.....	350
Morgan,	Somerset,	7,000	.....	7,000	125	10	.....	.....	48	.....	1	.....	.....
Morrell,	Fayette,	744,563	248,906	.....	304	425	1	1	.....	11	37	.....	400
Mahoning,	Fayette,	96,571	62,518	.....	309	93	.....	1	.....	5	6	.....	100
Mt. Braddock,	Fayette,	60,000	38,250	.....	255	147	.....	.....	.....	7	19	.....	170
Mt. Hope,	Fayette,	34,577	23,052	.....	310	33	.....	2	120	1	2	.....	40
Nellie,	Fayette,	240,000	160,300	.....	280	279	.....	.....	.....	3	20	.....	329
Nellie,	Somerset,	12,000	.....	12,000	200	25	.....	.....	150	.....	2	.....	.....
Oliphant,	Fayette,	118,650	79,100	.....	278	150	.....	.....	.....	6	11	.....	152
Oliver No. 1,	Fayette,	268,450	204,767	700	296	370	1	3	.....	7	23	1	328
Oliver No. 2,	Fayette,	228,300	171,424	.....	298	322	1	2	.....	4	25	1	300
Paul,	Fayette,	157,000	104,000	.....	350	460	1	.....	.....	8	21	1	415
Percy,	Fayette,	15,150	7,190	4,595	297	41	.....	.....	.....	.....	5	.....	36
*Pine Hill,	Somerset,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Redstone,	Fayette,	352,950	235,300	.....	284	357	1	5	.....	12	40	1	416
Stewart,	Fayette,	81,389	63,280	.....	267	123	.....	.....	.....	5	7	.....	120
Snider,	Fayette,	7,000	.....	7,000	194	11	.....	.....	.....	.....	.....	2	.....
Smock No. 1,	Fayette,	60,777	.....	60,777	240	66	.....	.....	.....	1	12	.....	.....
Smock No. 2,	Fayette,	7,180	.....	7,180	156	10	.....	.....	12	.....	1	.....	.....
Statler,	Somerset,	38,000	.....	38,000	225	55	.....	.....	.....	.....	4	.....	.....
Shaws',	Somerset,	118,751	5,262	110,658	270	141	.....	7	.....	1	12	.....	75
Shaws' Grassy Run,	Somerset,	5,211	.....	5,211	83	21	.....	.....	.....	.....	2	.....	.....
Standard,	Somerset,	3,010	.....	3,010	.....	7	.....	.....	.....	.....	2	.....	.....
Tub Mill Run,	Somerset,	16,592	.....	16,592	164	36	.....	.....	201	.....	2	.....	.....
Thomas,	Somerset,	16,171	.....	15,821	294	54	.....	1	.....	.....	1	.....	.....
Trotter,	Fayette,	400,650	267,100	.....	293	451	1	4	.....	8	39	.....	464
*Uniondale,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Victoria,	Fayette,	24,000	.....	24,000	250	34	.....	.....	.....	1	2	.....	.....
Wynn,	Fayette,	46,800	31,200	.....	241	61	1	.....	30	2	6	.....	70
Wheeler,	Fayette,	90,158	64,818	.....	309	105	.....	.....	.....	4	12	.....	103
Washington,	Fayette,	373,738	21,662	348,932	311	372	.....	.....	2,450	4	17	.....	75
Walker,	Somerset,	35,000	.....	35,000	250	47	.....	.....	180	.....	2	.....	.....
Yoder,	Somerset,	5,102	.....	5,102	113	9	.....	.....	.....	.....	1	.....	.....
Youngstown,	Fayette,	194,950	129,000	.....	282	223	.....	4	.....	7	25	1	240
Total,		6,423,802	3,756,487	950,364	14,970	8,389	13	70	6,150	192	710	14	7,686

*Mine idle all year.

TABLE No. 3.—*Showing the number of each class of employes at each colliery in the Fifth Bituminous Mine District during the year 1895.*

Names of Collieries.	Location—County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.						
		Inside foreman or mine boss.	Miners.	Miners' boys.	All company men.	Drivers and runners.	Door boys and helpers.	Total inside.	Blacksmiths and carpenters.	Engineers and firemen.	Cokers and yardmen.	All company men.	Superintendents, bookkeepers and clerks.	Total outside.	Grand total, inside and outside.
Atlas,	Fayette,	1	38	2	5	5	.....	51	1	3	24	2	1	31	82
Anchor,	Fayette,	1	47	.....	3	4	.....	55	1	1	40	2	2	46	101
Bessie,	Fayette,	.....	42	.....	1	2	.....	45	1	2	.....	2	1	6	51
*Buffalo,	Somerset,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Berlin,	Somerset,	.....	12	.....	1	2	.....	15	.....	.....	.....	1	1	2	17
Casselman,	Somerset,	1	25	5	.....	.....	.....	31	.....	2	.....	.....	1	3	34
Cumberland,	Somerset,	.....	62	6	2	6	1	77	1	.....	3	6	2	12	89
Clarissa,	Fayette,	1	45	.....	3	7	.....	56	1	.....	30	.....	2	33	89
Chester,	Fayette,	1	24	.....	2	2	.....	29	1	1	11	2	1	16	45
Crossland,	Fayette,	1	43	.....	2	4	1	51	1	1	38	3	2	45	96
Cheat Haven,	Fayette,	1	15	.....	.....	2	.....	18	1	.....	.....	2	2	5	23
Edna,	Somerset,	.....	2	.....	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	2
Elm Grove,	Fayette,	1	30	.....	2	3	.....	36	1	3	15	2	3	24	60
Fairchance,	Fayette,	1	59	.....	5	7	4	76	3	5	52	11	3	74	150
Ferguson,	Fayette,	1	15	.....	2	3	.....	21	1	1	8	2	1	13	34
Fairview,	Somerset,	1	60	10	3	8	.....	82	1	.....	.....	6	2	9	91
*Grindstone,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	1	3	3
Great Bluff,	Fayette,	.....	8	.....	3	1	.....	12	.....	1	4	.....	1	6	18
Grassy Run,	Somerset,	.....	28	2	.....	2	.....	30	.....	.....	.....	.....	1	1	31
Hamilton,	Somerset,	.....	9	.....	.....	1	.....	10	.....	.....	.....	.....	.....	.....	10
Hocking,	Somerset,	1	49	4	.....	4	1	59	.....	.....	.....	.....	.....	.....	59
Hill Farm,	Fayette,	1	58	.....	7	6	2	74	5	2	37	3	1	48	122
Hurst,	Fayette,	1	30	.....	2	2	.....	35	1	2	.....	5	2	10	45
Juniata,	Fayette,	1	115	.....	13	10	1	140	3	4	57	7	2	73	213
Kyle,	Fayette,	1	55	.....	5	8	.....	69	2	1	54	14	2	73	142
*Keystone,	Somerset,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Leith,	Fayette,	1	130	.....	26	20	6	183	4	8	105	22	2	141	324

Leisenring No. 1,	Fayette,	1	183	.....	24	29	13	250	5	8	136	42	3	194	444
Leisenring No. 2,	Fayette,	1	190	.....	30	30	8	259	7	9	160	37	3	216	475
Leisenring No. 3,	Fayette,	1	197	2	18	25	3	246	5	8	110	7	3	133	379
Lynn,	Fayette,	.....	25	5	.....	2	.....	32	.....	.....	.....	1	1	2	34
Laughead,	Fayette,	1	22	.....	1	2	1	27	2	2	13	14	2	33	60
Lemont No. 1,	Fayette,	1	84	6	13	14	3	121	3	7	60	25	2	97	218
Lemont No. 2,	Fayette,	1	170	2	22	18	1	214	17	7	110	30	2	166	380
Morgan,	Somerset,	.....	8	.....	1	.....	.....	9	.....	.....	.....	.....	1	1	10
Morrell,	Fayette,	1	170	12	20	31	6	240	4	5	161	13	2	185	425
Mahoning,	Fayette,	.....	41	4	5	5	.....	55	2	4	30	1	1	38	93
Mt. Braddock,	Fayette,	1	50	2	3	7	.....	63	5	5	46	6	2	64	127
Mt. Hope,	Fayette,	1	16	1	.....	2	.....	20	.....	.....	12	.....	1	13	33
Nellie,	Fayette,	1	150	.....	11	16	4	182	3	6	75	10	3	97	279
Nellie,	Somerset,	1	20	1	1	1	.....	24	.....	.....	.....	.....	1	1	25
Oliphant,	Fayette,	1	60	.....	5	7	.....	73	2	4	58	11	2	77	150
Oliver No. 1,	Fayette,	1	161	.....	27	23	5	217	11	4	107	30	3	153	370
Oliver No. 2,	Fayette,	1	150	.....	17	21	8	197	2	4	100	19	.....	125	322
Paul,	Fayette,	1	210	1	11	23	1	247	5	5	190	3	10	213	460
Percy,	Fayette,	1	18	.....	4	2	.....	25	.....	.....	12	3	1	16	41
*Pine Hill,	Somerset,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Redstone,	Fayette,	1	145	.....	22	25	13	206	6	8	104	30	3	151	357
Stewart,	Fayette,	1	49	.....	6	5	.....	61	2	5	46	7	2	62	123
Snider,	Fayette,	.....	9	.....	1	.....	.....	10	.....	.....	.....	.....	1	1	11
Smock No. 1,	Fayette,	1	42	7	2	5	1	58	1	1	.....	4	2	8	66
Smock No. 2,	Fayette,	.....	8	.....	.....	1	.....	9	.....	.....	.....	1	.....	1	10
Statler,	Somerset,	1	45	4	.....	4	.....	54	.....	.....	.....	.....	1	1	55
Shaws',	Somerset,	1	94	9	4	12	4	124	1	1	5	8	2	17	141
Shaws' Grassy Run,	Somerset,	1	17	.....	.....	2	.....	20	.....	.....	.....	1	.....	1	21
Standard,	Somerset,	.....	6	.....	.....	.....	.....	7	.....	.....	.....	.....	.....	.....	7
Tub Mill Run,	Somerset,	1	20	5	2	2	.....	30	1	.....	.....	3	2	6	36
Thomas,	Somerset,	.....	18	.....	2	1	.....	21	.....	.....	.....	2	1	3	24
Trotter,	Fayette,	1	170	7	21	22	14	235	6	5	172	42	3	208	451
*Uniondale,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Victoria,	Fayette,	1	25	.....	1	2	.....	29	.....	2	.....	1	2	5	34
Wynn,	Fayette,	1	30	.....	1	4	.....	36	1	2	20	1	1	25	61
Wheeler,	Fayette,	1	46	2	3	4	.....	56	1	3	42	2	1	49	105
Washington,	Fayette,	1	250	4	12	17	5	289	4	4	27	25	3	63	352
Walker,	Somerset,	1	37	3	.....	2	1	44	1	.....	.....	1	1	3	47
Yoder,	Somerset,	.....	8	.....	.....	1	.....	9	.....	.....	.....	.....	.....	.....	9
Youngstown,	Fayette,	1	85	.....	23	17	5	131	3	5	70	10	2	90	223
Total,		47	4,630	106	411	493	112	5,197	129	152	2,322	483	106	3,192	8,389

*Mine idle all year.

TABLE NO. 4.—*List of fatal accidents that occurred in and about the mines of the Fifth Bituminous Mine District for the year ending December 31, 1895.*

Date of accident.	Name of Person.	Occupation.	Age.	Number of orphans. Widow.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 3.	George W. Spalding,	Dumper,	18	....	....	Oliver No. 2.	Fayette,	Killed by falling down shaft while at work dumping coal on top of shaft.
18.	Robert Donaldson,	Mine foreman,	46	1	3	Wynn.	Fayette,	Was instantly killed between trips of loaded and empty cars, which collided on side track, caused by a misplaced switch.
Feb. 8.	Wm. J. Callaghan, Jr.,	Lamp carrier,	13	....	....	Trotter.	Fayette,	Caught in "bull wheel" of rope haulage, cutting his leg off, which resulted in death.
Mar. 11.	Peter Hoey,	Slope cleaner,	35	1	4	Morrell.	Fayette,	Run over by loaded trip on slope; his right leg was cut off and he was internally injured and died two days afterwards.
13.	William Watt,	Charger,	13	....	....	Oliver No. 1.	Fayette,	Run over by charging larry on coke ovens, which crushed his head, causing instant death.
Apr. 1.	August Bitner,	Charger,	23	1	....	Redstone.	Fayette,	Was running in front of charging larries to throw a switch, when he tripped and fell and was run over by larry.
8.	William K. Smith,	Driver,	21	....	....	Paul.	Fayette,	Was caught between wagon and rib; both legs were broken and he was injured internally; died in hospital two days afterward.
20.	Andy Slamor,	Miner,	29	....	....	Lemont No. 2.	Fayette,	Instantly killed by a fall of roof coal and slate, while drawing out posts in working out pillars.
July 15.	John Carrol,	Driver,	20	....	....	Leisenring No. 1.	Fayette,	A cross timber broke on side track, allowing a large piece of rock to fall on him, killing him instantly.
26.	Joseph Lucknick,	Miner,	45	1	4	Leisenring No. 2.	Fayette,	Was taking out posts in drawing ribs, when roof fell on him, burying him under fall; was dead when taken out.

Sept. 10,	George Smith, ...	Driver, ...	25	1	1	Leisenring No. 1, ...	Fayette, ...	Fell in front of loaded wagons while coming down grade with a loaded trip of cars; was found dead under the wagon.
26,	Thomas J. Ho per, .	Mine foreman,	54	1	7	Leith, ...	Fayette, ...	Caught between rib and loaded car while trying to pull on a wrecked trip of cars with the haulage engines; five ribs were broken and he was otherwise injured internally; died on September 30.
Nov. 2,	John Shupac, ...	Miner, ...	40	1	3	Lemont No. 2, ...	Fayette, ...	Was instantly killed by fall of slate while drawing out ribs.

TABLE No. 5.—*List of non-fatal accidents that occurred in and about the mines of the Fifth Bituminous Mine District for the year ending December 31, 1895.*

Date of accident.	Name of Person.	Occupation.	Age.	Married.	Number of children.	Name of Colliery.		Nature and Cause of Accident.
Jan. 5.	Thomas Malloy,	Driver,	37	M.		Leisenring No. 3.	Fayette,	A bruised foot; a wheel on the car broke, causing the bumper to catch his foot.
12.	John M. Carr,	Miner,	42	M.		Kyle,	Fayette,	Skull fractured by falling on iron rail while retreating from a fall that he was making on rib, while drawing out pillars.
18.	Thomas Laughren,	Driver,	20	S.		Trotter,	Fayette,	Two ribs broken; two trips collided; cars jumped the track and squeezed driver between rib and car.
Feb. 1.	Richard Kearns,	Coke drawer,	35	M.		Trotter,	Fayette,	While stepping into a stock car his foot slipped, which caused him to fall, breaking his leg between the knee and ankle.
8.	William Sterling,	Laborer,				Mahoning,	Fayette,	Scalp wound six inches long, received while at work on the coke ovens.
Mar. 4.	Mike Dudish,	Miner,	35	S.		Leisenring No. 2.	Fayette,	Flesh wound on the leg about eight inches long, caused by slate rolling from corner of rib.
4.	Herman Kramer,	Miner,	34	S.		Leisenring No. 2.	Fayette,	Crushed about hips by fall of slate that he was pulling down.
4.	William Dean,	Driver,	20	S.		Oliver No. 2,	Fayette,	Bruised and cut on head, face and breast by being thrown from trip against pillar.
7.	John B. Price,	Fireman,	32	M.		Redstone,	Fayette,	Fell from trestle, bruising his head and face.
7.	Thomas Connell,	Miner,	35			Leisenring No. 2.	Fayette,	Three flesh wounds on the head not serious, caused by fall of roof coal and slate.
8.	John W. Owens,	Miner,	24	S.		Leisenring No. 2.	Fayette,	Contusion of the back, not serious; a piece of slate fell and struck him while he was stooping.
11.	Michael Sen,	Miner,	42	M.		Lemont No. 1,	Fayette,	While drawing posts on rib work was caught by fall of coal and slate and injured about legs.
12.	George Kolar,	Miner,	27	M.		Youngstown,	Fayette,	Ankle badly sprained and cut below the knee, caused by falling in front of wagon while running it down his room.

	12,	Nicholas Beal,	Miner,	46	M.	Shaws',	Somerset,	Thigh hurt by fall of coal.
	13,	John Krade,	Miner,	28	S.	Ferguson,	Fayette,	Had two fingers cut off by car jumping the track while taking it from his room.
	15,	Mike Durshaw,	Miner,	19	S.	Lemont No. 2,	Fayette,	One arm broken, head severely injured and right ear split in two by fall of top coal while drawing ribs.
	18,	John Cummings,	Miner,	35	....	Shaws',	Somerset,	Back hurt by fall of coal and slate.
	28,	William Sampey,	Driver,	20	S.	Lemont No. 2,	Fayette,	Hand mashed between car and post while guiding car into a room.
	29,	Andy Drapp,	Miner,	22	S.	Lemont No. 2,	Fayette,	Ankle and arm injured by fall of roof coal, while drawing a post.
Apr.	4,	Michael Brown,	Miner,	52	M.	Shaws',	Somerset,	Hip hurt by fall of breast coal.
	8,	Thomas Pope,	Driver,	21	S.	Redstone,	Fayette,	Fell from front of trip of loaded wagons and was hurt about the hips (not seriously).
	10,	George Harford,	Patcher,	15	S.	Youngstown,	Fayette,	Leg crushed and sprained by wheel of wagon; tripped and fell while running by side the wagon.
	11,	Robert Dent,	Slope cleaner,	36	M.	Redstone,	Fayette,	Collar bone broken and foot hurt by being struck by empty trip of cars on slope.
	14,	Thomas Carrier,	Miner,	44	S.	Hill Farm,	Fayette,	Breast and shoulders injured and head cut by a piece of slate.
	15,	John Berosh,	Miner,	40	S.	Leisenring No. 3,	Fayette,	Was struck by corner of mine wagon, breaking small bone of left hand.
May	3,	Lindsey Wilson,	Trapper,	13	S.	Oliver No. 1,	Fayette,	Shoulder dislocated by being caught between wagon and rib when away from his door.
	27,	William Morgan,	Driver,	45	....	Leisenring No. 2,	Fayette,	Hand hurt by being squeezed by the brake on mine wagon (not seriously).
June	11,	Mike Gregor,	Miner,	46	M.	Leisenring No. 2,	Fayette,	Breast and back hurt by being run over by loaded wagon, while dropping it out of his room.
	24,	Ross Boyd,	Miner,	45	M.	Lemont No. 2,	Fayette,	Left wrist broken, head cut and back injured by fall of coal and slate while running out stump of coal on pillar.
	27,	Louis McDowell,	Superintendent,	36	M.	Laughead,	Fayette,	These two persons were seriously injured by a boiler explosion while at work in their office; cause of explosion unknown.
	27,	Charles Wilson,	Clerk,	18	S.	Laughead,	Fayette,	
	28,	Wilson Gomer,	Miner,	32	M.	Trotter,	Somerset,	Collar bone broken by fall of slate while working in face of his room.
July	11,	James Seggie,	Miner,	46	M.	Shaws',	Fayette,	Shoulder bone broken by fall of slate, while at work in his room.
	22,	Joe Christian,	Miner,	22	S.	Oliver No. 1,	Fayette,	Leg broken by piece of slate falling on him while at work at drawing pillars.
	24,	Charles Rauback,	Miner,	30	S.	Hill Farm,	Fayette,	While at work drawing pillars a fall of slate from the roof broke his leg.
Aug.	5,	James Barnes,	Driver,	27	M.	Redstone,	Fayette,	Foot hurt by wagon getting off track.
	6,	John Monahan,	Latcher,	30	M.	Lemont No. 1,	Fayette,	Crushed about the body by a fall on slope caused by a runaway trip knocking out the timbers where he was standing.
	6,	Jacob Wilson,	Miner,	67	M	Laughead,	Fayette,	While drawing out posts on a rib a piece of slate fell on him; back and shoulder hurt.

TABLE No. 5.—*Continued.*

Date of accident.	Name of Person.	Occupation.	Age.	Married.	Number of children.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Aug. 10,	George Cole,	Miner,	24	S.		Hill Farm,	Fayette,	Leg broken by fall of slate while at work drawing out pillars.
24,	James Kaine,	Trapper,	13	S.		Leith,	Fayette,	While the pick car was being taken to the blacksmith's shop he jumped on it, and while trying to get off again he fell and was cut and bruised about the face (not seriously).
Sept. 11,	William Broadwater,	Miner,	30	M.		Crossland,	Fayette,	Slightly burned on the hands and face by gunpowder.
16,	A. Ecberisowasky,	Miner,	55	M.		Shaws',	Somerset,	Head cut; supposed to have been by a fall of slate.
18,	John Baloy,	Miner,	45	M.		Leisenring No. 2,	Fayette,	While standing at shaft bottom, waiting to be hoisted, a loaded car struck an empty one, throwing it off the track, which caught Baloy between the rib and bumpers of wagon, breaking his leg so badly that it had to be amputated above the knee.
18,	George Ketsoner,	Miner,	35	M.		Leisenring No. 2,	Fayette,	Squeezed about hips and back, caused by wagon jumping track where he was standing to allow it to pass him.
Oct. 3,	Mike Burnidiski,	Miner,	37	M.		Leisenring No. 1,	Fayette,	Two ribs fractured by a fall of coal and slate in his working place.
12,	John Shumaker,	Miner,	26	S.		Lemont No. 2,	Fayette,	Back injured, ankle dislocated and broken by a fall of slate while he was drawing out post in a rib.
17,	John Kelly,	Driver,	30	S.		Trotter,	Fayette,	Hurt about breast by being squeezed against rib by car jumping off track.
21,	John Bidner,	Miner,	24	S.		Leisenring No. 2,	Fayette,	Leg fractured by fall of slate while he was digging coal in his room.
Nov. 3,	George Whyel,	Fireman,	18	S.		Leith,	Fayette,	Face and hands scalded by steam from blow-off pipe bursting on one of the boilers.
11,	Henry Kenerism,	Miner,	62	M.		Shaws',	Somerset,	Head hurt by fall of breast coal while at work in his room.
15,	John McDonough,	Miner,	67	M.		Anchor,	Fayette,	Injured by piece of slate falling on his shoulder, straining right side and hand.

	18,	Peter Blunt,	Driver,	41	M.	Morrell,	Fayette,	Right foot badly bruised; car ran over it.
	23.	W. H. Johnson,	Miner,	40	M.	Lemont No. 1,	Fayette,	Hips and legs crushed by fall of coal and slate while drawing posts in rib working.
	25,	George Carlock,	Miner,	33	M.	Mt. Hope,	Fayette,	Burned by gunpowder from a blown out shot. They were making a cut-through and drilled a hole almost through and went to the opposite side to wait until the blast went off; the shot blew through and filled the place where they were standing with flame, burning them very severely.
	25.	Paul Vayda,	Miner,	36	M.	Mt. Hope,	Fayette,	
	26,	Christopher Dick,	Miner,		M.	Grassy Run,	Somerset,	Hand mashed by fall of coal in his working place.
	27.	Shrive Hull,	Miner	38	M.	Redstone,	Fayette,	Back very severely injured by fall of slate while at work splitting a rib.
Dec.	1,	Nelson Brant,	Miner,	45	M.	Thomas,	Somerset,	Head injured by piece of slate falling from the roof of his working place.
	4,	Albert Farrell,	Trapper,	16	S.	Oliver No. 1,	Fayette,	Kicked by a horse, which caused the loss of his left eye.
	6,	Daniel Quinn,	Driver,	26	S.	Leisenring No. 2,	Fayette,	Fell from the front of a wagon, the wheel running over his hand, cutting off one of his fingers.
	6,	John Zurrock,	Driver,	26	M.	Oliver No. 2,	Fayette,	Cut severely on the head.
	10.	Louis Barnhart,	Coke drawer,	34	S.	Youngstown,	Fayette,	Scalded severely by bursting of a steam pipe in boiler house, while warming himself at fire.
	10,	Edward Brown,	Boss driver,	41	M.	Youngstown,	Fayette,	Kicked on leg by a mule in the stable, which broke small bone of his leg.
	13,	Robert Harry,	Slope cleaner	27	M.	Hill Farm,	Fayette,	Struck by a trip on the slope.
	13.	Peter Stagnon,	Miner,	35	M.	Clarissa,	Fayette,	Left leg and right ankle broken by fall of slate while drawing out posts on rib.
	16.	John Reily,	Driver,	30	M.	Leisenring No. 3,	Fayette,	Caught between empty car and rib; body crushed.
	18,	John Vesa,	Driver,	25	M.	Leisenring No. 3,	Fayette,	Caught between loaded car and roof; body crushed.
	21.	John Weldon,	Driver,	22	S.	Leisenring No. 3,	Fayette,	Knee hurt by being kicked by a mule.
	23.	Christopher Damage,	Driver,	32	M.	Lemont No. 2,	Fayette,	Collar bone broken by being caught between empty car, which jumped the track while going into switch and rib.
	27,	Calvin Folk,	Miner,	33	M.	Shaws',		Shoulder hurt and collar bone broken by a fall of breast coal in his working place.

SIXTH BITUMINOUS DISTRICT.

(CAMBRIA, SOMERSET AND INDIANA COUNTIES.)

Johnstown, Pa., March 9, 1896.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor of presenting herewith my eleventh annual report as Inspector of the Sixth District of the Bituminous Region.

It contains the usual tables which show that 4,406,750 tons of coal were mined during the year 1895, an increase of 1,425,662 tons over the production of 1894.

The number of fatal accidents has decreased from thirteen in 1894 to eight in 1895, and the non-fatal ones increased from seventeen in 1894 to nineteen in 1895.

The report contains brief articles on the condition of each mine as regards the ventilation and drainage, and some remarks on the improvements made at the mines during the year.

Yours very respectfully,

J. T. EVANS,
Inspector of Mines.

IMPROVEMENTS MADE AT THE MINES IN THE SIXTH BITUMINOUS DISTRICT DURING 1895.

The following collieries have put in new machinery for improving the haulage and ventilation:

D. H. Laughman & Co., at their Dysert mine, a new hauling plant for bringing coal out to the dip workings, and a steam locomotive for conveying coal from the mine around to the tipple; also a 7 foot Stine fan for the purpose of increasing the ventilation of the mine.

The Sonman Coal Company, a tail rope haulage, size of engine 16x18 inches.

The Lovell Coal Mining Company, electric haulage at their Trout Run slope at Portage.

McGee & Lingle, at their New Pardee mine at Patton, a very fine tail rope haulage plant.

The Vintondale Colliery Company, an electric motor for hauling the coal out of the mine.

The following companies have put in fans for increasing their ventilation: Euclid, a 7 foot Stine fan; Webster No. 3, a 12 foot Guibal; Henrietta shaft, a 12 foot Guibal; Madeira Coal Company, a 7 foot Clark fan; Sonman No. 2, a 12 foot Guibal; at the Big Run colliery, a 7 foot Stine fan.

The Stine fan is a high speed fan, and when running at 300 revolutions per minute it is about equal in capacity to a 15 foot Guibal fan, running at 60 revolutions per minute.

The activity in the coal trade during several months of the year was quite an incentive to the improvement of the collieries by the operators, as is seen by the amount of machinery added in such a short time. The trouble formerly was to get operators to put in power in the form of a furnace or fan to produce sufficient air to supply the men with the volume demanded by the mine law. That trouble has about ceased, and the difficulty now lies more with the men in charge of the collieries in not properly distributing and conducting the air to the working faces. To successfully accomplish this work, more care should be taken in building overcasts, or air-bridges, doors, and air stoppings—the latter to prevent leakage, the doors to conduct the air in its proper course, and the air-bridges to carry sufficient quantities to each district in the mine, to force out the foul air and replace it with fresh.

A synopsis of the whole matter may be given by saying that there is a much improved condition in the haulage, drainage, ventilation and general safety of the mines of the district.

It is very gratifying to me to report a decrease of five in the number of fatal accidents, with an increased production of 1,425,662 tons of coal, and that the accidents were mostly of a purely unavoidable kind, not caused by the carelessness or neglect of any one, but of that nature the miner, in his dark and gloomy place of toil, is always in danger of.

Number of mines in the district,	82
Number of mines not working during year,	12
Number of mines not reported,	4
Number of mines reported their coal production,	66
Total production of coal for 1895 (tons),	4,406,750
Total production of coke for 1895 (tons),	133,992
Total shipment of coal for 1895 (tons),	3,684,375
Average number of days worked,	189⅔
Total number of persons employed,	7,081
Number of fatal accidents,	8
Number of non-fatal accidents,	19

Number of tons of coal mined per fatal accident,	550,843
Number of tons of coal mined per non-fatal accident,	231,934
Number of employes per each fatal accident,	885
Number of employes per each non-fatal accident,	372
Number of steam boilers,	83
Number of steam engines,	53
Number of horses and mules,	621
Number of coke ovens,	704

Causes of Fatal Accidents.

By fall of coal,	3
By fall of rock,	2
By mine wagons,	2
Burned by gas,	1
Total,	8

Causes of Non-Fatal Accidents.

By fall of coal,	5
By fall of rock,	3
By mine wagons,	7
Burned by gas,	3
Burned by powder,	1
Total,	19

Number of orphans,	13
Number of widows,	5

REPORT OF THE CONDITION OF EACH MINE IN THE DISTRICT.

Rolling Mill.—This is the most extensive operation in the district and one of the best equipped; ventilation is produced by fan; haulage, by tail rope system, and the mining is conducted on the most improved plan—the three heading system. In the pillar drawing considerable gas is given off, but the greatest of care is exercised to avert accidents from this source, as well as from all others usually met with in extensive mines.

A mine foreman, an assistant, and two fire bosses are employed; also an Inspector over the hauling road and traveling ways.

whose special duty it is to examine these ways, to keep everything safe and in good working order, and to make a written report to the superintendent once every week; said report gives the date when any danger is found, and when it was removed. To meet the wants of those who may be injured in or about the mine, two emergency boxes are kept at hand, one outside and one inside, each of which contains the following articles for immediate use: Soda, bandages, cotton gauze, adhesive plaster and small scissors.

Following will be found the blank report which has been prepared by Mr. Morris, the superintendent of the mine, to be filled out each week by the inspector of the traveling or manway, as mentioned above. Mine foreman, David Edwards.

BLANK REPORT.

Cambria Iron Company
Mining Department,
Rolling Mill Mine.

Weekly report of condition of the entire length of the manway.

Roof, ... Drainage,.....
Finger boards, ... Fences,.....
Props, ... Walls,.....
Repairs needed, ...
.....
Remarks: .....
.....

I made a personal examination of the entire length of the manway this Monday, ..., 189 , and find it in good and safe condition with the exception noted above.

..... Inspector.

Approved.

..... Supt. of Mines.

The repairs needed as shown by the above report, were completed this ..... day of ....., 189 .

..... Inspector.

Haw's Shaft.—I find this mine at all times in excellent order; ventilation, drainage, haulage and general safety are in the most satisfactory condition. Mine foreman, William Oppy.

The Following Three Mines are Located on the Baltimore and Ohio Railroad.

Krebs.—Is located in Somerset county, near the town of Somerset. The ventilation and drainage of this mine are excellent; everything, in fact, necessary for the comfort and safety of the employes is carefully looked after by those in charge. Mine foreman, William McKee.

Bethel.—This is a small operation but is kept in splendid condition as regards ventilation and drainage. Mine foreman, Joseph Virgin.

Ingleside.—Is operated by the Ingleside Coal Company. The ventilation and drainage were in reasonably good condition when last examined. Mine foreman, William Moss.

Argyle.—This mine is always in good condition; its drainage, ventilation and general safety are well looked after. The ventilation is produced by a furnace, which is properly attended to; the hauling is done by machinery, the tail rope system having been adopted. Mine foreman, John W. Donaldson.

Aurora.—This mine was in good condition on my last examination. I measured 12,500 cubic feet of air in circulation, which was well distributed and conducted to the face of the workings. Mine foreman, Harry Gage.

Euclid.—A Stine fan was put in at this mine during the past year, which has greatly improved the ventilation. It can now be classed among the mines of the district having good ventilation and drainage. Mine foreman, Samuel Brewer.

Conemaugh.—This is not a very large mine, but it is one of the best ventilated in the district, the drainage is also excellent. Mine foreman, David Duncan.

Stineman.—Is located at South Fork. At date of last visit to this mine, I measured 64,000 cubic feet of air in circulation. It was well distributed in the dip workings, but in the upper, or level workings I found some places a little defective, caused mostly by a creep upon that portion of the mine, which had partly closed up the airway which conducted the air to that division of the work. Shortly after my visit the foreman reported to me that another opening had been made, which remedied the defect in that part of the mine. The drainage is good. Mine foreman, R. Ott.

Webster No. 3.—This is one of the largest operations in the district. It is practically two mines in one, as each of the two divisions (dip and level workings) has a separate haulage plant and each is ventilated independently of the other. Three fans are used to ventilate the workings, one large 18 foot fan for the levels and two 12 foot fans for the dip workings.

Extensive improvements have been made here during the last year

two Ingersoll air compressors having been erected and a hole drilled 365 feet deep and 10 inches in diameter, through which the water is to be pumped out of the dip workings by compressed air, instead of steam.

Two incline planes are used to drop the coal down from the upper to the lower levels.

On my last visit to this colliery I measured 90,000 cubic feet of air in circulation, 55,000 in the level and 35,000 in the dip which was well distributed through the workings. The drainage is also excellent. Mine foreman, James Callahan.

Sumner No. 2.—This is an old mine and very difficult to keep in good condition; neither drainage nor ventilation is up to the standard. A new company and new officers have taken charge of the plant since the 1st of December; they contemplate remodeling it, and changing the system of mining entirely, which will, no doubt, improve the haulage, drainage and ventilation. Present mine foreman, John Daniel.

Dunlo.—This is a small operation, employing about thirty persons, but it is kept in excellent condition as regards ventilation and drainage. Mine foreman, Richard Pardoe.

Yellow Run Shaft.—Is operated by the Berwind-White Coal Company. The ventilation is produced by a 16 foot fan. At date of last visit I measured 37,500 cubic feet of air in circulation; it was well distributed through the workings, and the drainage was improved since previous visit. A self-acting plane is now in operation, upon which the coal is dropped from the upper to the lower, or main level. Mine foreman, Thomas Booth.

Henrietta Shaft.—A 12 foot fan was erected at this shaft during the year, which has greatly increased the ventilation. The drainage has also been improved during the past few months. The general safety of the mine and the sanitary condition was found to be very satisfactory on my last examination. Mine foreman, Thomas Williams.

Puritan No. 1.—At date of last visit to this mine I measured 36,000 cubic feet of air in circulation, divided into four splits; in one of them I found the volume which was passing, too small to carry away the smoke made from blasting as fast as it should, and, therefore, suggested that two of the splits be united, to increase the volume passing per minute so that the smoke would be carried away faster from the men.

The drainage is somewhat defective which is caused by the headings being driven too narrow to keep good ditches on the side; they are now increasing the width of the headings, which will be an improvement to the mine in ventilation, drainage and safety; especially for the drivers. Mine foreman, Harvey Mears.

Puritan No. 2.—This is only a small operation opened along the boundary line of the Pilgrim mine and is ventilated by a split of air from the fan of that mine. When last examined I found a very good current of air in circulation through the workings; the drainage was also in fair condition. Mine foreman, George Bell.

Ivy Ridge.—This mine has been idle a great deal during the year, and was not in operation each time I made a visit in the vicinity during the later months. On my last examination it was undergoing a change in the system of ventilation, which I was fully convinced would greatly improve the sanitary condition of the mine when it should be completed. Mine foreman, Evan D. Davis.

Pilgrim.—Extensive improvements have been made at this colliery during the year, electric haulage having been put in, in place of mules. This necessitated a great deal of change in the mine namely the widening of the headings, and the relaying of the tracks with heavier rails.

The ventilation on my last visit was rather poor in one part of the mine which was caused by defective doors and stoppings which allowed the air to escape to the return before it reached that locality.

The drainage is good, and there is no reason why the ventilation should not be the same, as there is a large volume of air forced into the mine by a 12 foot Guibal fan. I expect to find the defect remedied on my next visit. Mine foreman, Daniel Campbell.

Sumner No. 1.—This mine is in excellent condition both as regards ventilation and drainage. There are three splits, each with volume enough to pass the air through the workings at a velocity sufficient to carry the smoke away quickly. Mine foreman, Joseph Appleyard.

Excelsior.—The drainage and ventilation of this mine on my last visit were very good. Mine foreman, Robert Pierce.

Sonman No. 1.—The ventilation and drainage have been greatly improved here during the past year. Being an old colliery considerable difficulty has been encountered in bringing about the improvements. At date of last visit I found a brisk current of air passing through the face of the workings and good drainage throughout the mine. Mine foreman, Frank Morrison.

Bens Creek Plane.—The ventilation and drainage here are not up to the standard. This mine was opened near an abandoned colliery and driven through a part of the old workings, which has destroyed the system of ventilation. It is only a small operation and has not a very large tract of coal to work on. Mine foreman, John Leap.

Columbia No. 4.—When last examined, the condition as regards ventilation and drainage was fairly good. This mine is now driven in quite a distance, and will therefore require great care on the part

of the foreman, to carry the air to the extreme face of the workings in quantities sufficient to supply the men properly. Mine foreman, Lawrence Gardner.

Sonman Shaft.—Extensive improvements have been made at this colliery during the past year. A new haulage plant has been put in, size of engine, 16x18 inches; an air compressor for driving the pumps by compressed air, size, 20x20¼x24 inches; two 80 horse power boilers, and a new Duplex pump, 16x12x9 inches for mine drainage.

In order to comply with the mine law, three large overcasts have been built of stone and brick, to split the air current and give each section of the mine a separate supply of fresh air, and to further increase the safety of the mine, a new traveling way has been driven the full length of the slope for men to travel in and out on. It is now one of the best equipped plants in the district for haulage, ventilation and drainage. Mine foreman and superintendent, Joseph Patterson.

Dysert.—There have been a great many improvements made at this colliery during the year. There has been erected a new Stine fan, 7 feet in diameter, to improve the ventilation, a new haulage engine for drawing coal up from the dip workings, and an incline plane to let down the coal from the upper levels to the lower, or main level. These improvements have put the mine in a much better condition by increasing its general safety, thereby raising its sanitary condition to a higher standard.

Regarding the ventilation, considerable work is yet required to put it in good order. Mine foreman, Thomas Leahy.

Lilly Slope.—This mine is in first class condition. On each inspection made during the year the workings were found well ventilated and the health and safety of the employes well cared for. Any one who doubts the practicability of conducting air in an extensively worked mine, in a large volume to the face of the workings, should pay a visit to this colliery and see how successfully it is done, by the erection of good air stoppings of slate and mortar. The air is carried from a mile and a half to two miles from the fan to the face of the workings, with practically no loss in volume.

The seam of coal worked is very small, ranging from 2 feet 10 inches to 3 feet 4 inches, but is excellent in quality. Mine foreman, Nicholas Evans.

Bear Rock.—The ventilation here is only fair; it should be much better, as it is a small mine and could be easily kept in good condition. It will soon be worked out, as it was opened on only a small tract of coal land. Mine foreman, Tom Morran.

Sonman No. 2.—This mine had been ventilated by furnace prior to the last year, when a 12 foot fan was put in, to increase the volume

of air passing through the workings. If the air is properly distributed, there is no reason why its sanitary condition cannot be raised to a much higher standard than formerly. The deficiency heretofore has been mostly in not having airways to carry the air around the mine—what little there was of it. A better system of distribution is now expected, since the fan has been put up. Mine foreman, Patrick Leahy.

Cresson Shaft.—This colliery when last inspected was in reasonably good condition on the whole, but I observed that the air current in one part of the mine was defective, and found that it was caused by failure to connect with another part of the mine, the workmen having struck a large rock fault which delayed them. On examination I found that the connection would be made in a day or two which would remedy the defect. Mine foreman, John Platt.

Gallitzin Slope.—This is one of the largest mines in the district and is worked on the most improved plans of mining. The drainage, ventilation and haulage are of first class order. At date of last examination I measured 43,000 cubic feet of air in circulation, which was well distributed through the workings. Mine foreman, Gowen Stoker.

Gallitzin Shaft.—The ventilation of this mine I found on my last visit to be only fair. The drainage was defective and has been so for some time. This mine has been somewhat neglected in its drainage and ventilation during the last two years, as it has not been worked more than about six months in that time. There are more roads to keep up in this mine, for the quantity of coal produced, than in any other in the district. Mine foreman James Eagan.

Amsbury.—This colliery had been idle for about two years, prior to last October, when the firm of Taylor Brothers leased the plant and they are now operating both the mine and coke ovens. I made only one visit here; which was but a few days after they had started up and before any time was given to put things in order. There should be no trouble with the ventilation, as there is a 16 foot fan erected to produce air for the mine. Mine foreman, William Bell.

Dean No. 4.—Is located at Frugality. Ventilation is produced by fan, and is reasonably good. This mine has seen its best days, as there is very little new territory to open up, most of the work now being on pillars and stumps. It has been a difficult mine to get coal out of, on account of its having a bad roof and being very wet. Mine foreman, George Simmers.

Dean No. 5.—Is comparatively a new opening, well ventilated and drained. At date of last visit I measured 12,400 cubic feet of air in circulation, well distributed through the face of the workings. The

sanitary condition of the mine I consider very satisfactory. Mine foreman, William Simmers.

Big Run.—This mine is located on the Blacklick branch of the Pennsylvania railroad, about five or six miles below Ebensburg. The mining is done by machinery which is driven by compressed air. The ventilation and drainage are excellent. Mine foreman, Arthur McHugh.

Vinton Nos. 1 and 2.—The ventilation and drainage of these two mines are first class. The coal is mined and hauled by machinery driven by electricity, and the fan by which the mine is ventilated is run by the same power. A very fine electric plant has been built here, which besides doing the work above mentioned, lights up the beautiful mining town of Vintondale and furnishes light to the miners as well. Mine foreman, George Blewitt and John Good.

Elmora.—On my last visit to this mine I measured 18,500 cubic feet of air in circulation; it was fairly well distributed through the face of the workings. I found the drainage greatly improved since my former visits, and the general condition of the mine was very satisfactory. Mine foreman, Michael Currants.

Sterling No. 13.—This is a new mine which is not sufficiently developed to enable me to give a general description of its workings. Heading driving is about the only work that is being done now. Mine foreman, James Meehan.

Spangler.—This mine is in excellent condition, as regards ventilation, drainage and general safety. The volume of air is ample for all purposes and is well distributed. Mine foreman, Henry Redding.

Benton No. 2.—Is a small operation, but is in excellent condition being well ventilated and drained, and a keen interest is taken in the safety and comfort of the employes. Mine foreman, Peter Stewart.

Sterling No. 11.—At the time of my last visit the system of ventilation was somewhat broken up, from changes that were being made to improve the haulage of the mine. A slant heading had been driven across the works to cut out a heavy grade, so as to get a level haul and dry roads. This change necessitated new doors and stoppings, which, as stated, were not put in when I last visited the mine. Mine foreman, John McGonigal.

Lancashire No. 4.—At date of last visit to this mine I found that about one half of the work was on a "creep" so heavy that it had closed up one heading within 24 hours, where from forty to fifty men worked. No pillars were drawn and the rooms were driven only from 18 to 20 feet wide, with pillars left between 21 and 24 feet thick, yet the creep came over all. It was the heaviest squeeze I ever witnessed. It very forcibly demonstrated the fact that when a creep

comes upon a mine, great efforts should be made to break the roof; if not, we are apt to be surprised at the thickness of barriers or pillars required to stay the trouble. It seems that in the early working of this colliery, too much haste was made to ship large quantities of coal, by opening up rooms too near the main headings, and in not leaving sufficient support for the roof. The trouble above referred to had been slowly but surely coming on for about two years.

Ventilation and drainage are well looked after by a competent official. Mine foreman, John Reed.

Lancashire No. 3.—Is in excellent condition as regards ventilation, drainage and general safety. This is not an extensive mine, but the comfort and safety of the men should be looked after as carefully where a dozen are employed, as where there are a hundred. Mine foreman, Thomas Stevenson.

Lancashire No. 6.—This is a new operation, not yet being sufficiently developed to permit me to say much about it. But the indications are that those in charge have an eye to the future of the mine, by opening up and driving all their headings on sights, making them large and roomy, and not opening up rooms on main headings, nor on cross headings too near the main headings so as to cause any trouble in the future. I fully expect this to be a first class mine. Mine foreman, Harry Byron.

Alpha.—Unfortunately this mine was opened in a large fault. It has been worked at intervals for about two years in trying to get through this trouble. The foreman now claims that they have succeeded and have reached good coal. I recently made an examination of the mine and found that no regular system of ventilation had been established, as they could not well arrange it until they had fully developed the mine beyond the fault; but I did not find any of the men suffering for want of air. Mine foreman, Harry Williams.

Delta.—This mine is located at Barnesboro and is the most extensive in that locality; the ventilation is only fair, the mine having been increased beyond the capacity of the furnace.

A fan is promised here at once, as it is the desire of those in charge to have the sanitary condition of the mine of the highest order. Mine foreman, Roger Bowen.

Cymbria.—Is in excellent condition as regards ventilation, drainage and general safety. Those in charge seem to take great pride in keeping the mine strictly up to the requirements of the mine law in every respect. Mine foreman, W. M. Gates.

Allport.—Is a new mine recently opened. I have made but one visit here and was pleased to find the ventilation and drainage in first class condition and the safety and comfort of the employes well cared for. Mine foreman Charles Stewart.

Juniata.—This is a small operation, just being opened up and is not sufficiently developed to permit giving any description of its workings; but it was developed far enough on my examination to find, that unfortunately at the face of the main headings a dip was encountered ahead of it and on both sides, left and right, the heading being right on a summit or knob. Ventilation is good. Mine foreman, Alfred Slater.

Oak Ridge.—Is in excellent condition. The ventilation, drainage and general safety of this mine are first class. Mine foreman, James Campbell.

Benton No. 1.—Is located at Hastings and operated by D. W. Holt. The ventilation here is reasonably good, though it is a difficult mine to ventilate on account of the seam coal being so low as to give only small areas for the air to travel through, without going to the expense of blasting the roof to enlarge the airways. The drainage is excellent. Mine foreman, John Jones.

Sterling No. 10.—This mine is also located at Hastings. The ventilation is produced by furnace. At date of last visit I measured 9,000 cubic feet of air in circulation to supply thirty-four persons, which was well distributed through the workings. Mine foreman, James Highham.

Hastings.—At date of my last visit I measured 15,500 cubic feet of air passing into this mine, but I found that the air in the left-hand workings was rather weak, which was caused by the connections to that part of the mine not being completed after having gone through a large rock fault. A few days work would remedy this defect. The drainage of the mine is excellent. Mine foreman, B. F. Smith.

Sterling Nos. 8 and 9.—Is located at Hastings. This is a very large colliery, giving employment to 318 persons, inside and outside. The ventilation is produced by a 12 foot fan and a furnace, but the capacity of the mine has grown beyond the capacity of the ventilators. The 12 foot fan should be replaced by at least a 20 foot fan, to be run at a moderate speed. The quantity of air that is forced into the mine is well distributed, therefore no one is suffering. I hope to see a larger fan at this mine in the near future; it can then be ranked as one of the best equipped mines in the district. Mine foreman, James L. Nicholson.

New Pardee.—The ventilation and drainage here is in excellent condition. A 12 foot fan produces the ventilation and passes a volume of 40,000 cubic feet per minute. A test was made here to find out the quantity of coal used to produce sufficient steam to run the fan at a speed to give this volume of air. After a couple of weeks test, it was found that about 500 pounds of coal per day did the work; from this test the economy of the fan over the furnace can be seen.

To produce the same quantity of air with a furnace, it would require two tons of coal. Putting the price at 80 cents per ton, the cost would be $1.60, and adding $1.00 for labor in attending to furnace it would make a total of $2.60 per day with the furnace. The cost with fan would be 20 cents for coal and 50 cents for labor, if the boiler is put in a proper and convenient place, making a total cost of 70 cents per day, or for one year of 300 days, $210. Cost of furnace for one year, $780. This shows a saving of $570 in one year, which is more than the cost of fan and engine, put in place ready to work.

How surprising it is that our mining men will still stick to the old system and spend half the price of a fan to put down a shaft and build a furnace to ventilate their mines, at a cost of nearly four times as much per day as it could be done for with a fan. I am pleased to know that the economy of fan ventilation is beginning to be seen. Mine foreman, Frank Campbell.

Moshannon.—On my last visit to this mine I found the ventilation and drainage very much improved over its condition on my former visits, especially the drainage. Mine foreman, John Sheehan.

Flanigan Run.—Here is another case of the capacity of the mine increasing beyond the capacity of the furnace to produce ventilation sufficient to keep the workings in a first class sanitary condition. I have frequently urged upon the superintendent here to put in a fan to increase the ventilation; he has promised to do so, but has not yet acted. With the exception of the ventilation being a little weak, it is one of the best conducted mines in the district. Mine foreman, Alexander Montooth.

Columbia.—This mine has been fairly well ventilated up to the present time, but the time is about at hand when either a much larger furnace, or a fan, will have to be put in to keep the ventilation. The drainage is reasonably good. Mine foreman, D. B. Beaver.

Ashcroft.—This mine had been shut down for over a year but started up again about the 10th of December. I have not examined it since them. Mine foreman, W. J. McDowell.

Patton.—At date of last visit I measured 7,000 cubic feet of air passing through the extreme face of this mine. I also found the drainage good. Mine foreman, J. J. McGonigal.

TABLE No. 1.—*Showing location, etc., of collieries in the Sixth Bituminous Mine District.*

Name of Colliery.	Name of Operator.	Location—County.	Name of Superintendent.	Post Office Address.
Argyle,	Aryle Coal Company,	Cambria,	J. P. Wilson,	South Fork.
Aurora,	Aurora Coal Company,	Cambria,	D. W. Luke,	South Fork.
A. J. Haws & Son,	A. J. Haws & Son,	Cambria,	H. Y. Haws,	Johnstown.
Anchor,	Cambria Coal Mining Company,	Cambria,	E. S. Brubaker,	Puritan.
Ashcroft,	Patton Coal Company,	Cambria,	John Ashcroft,	Patton.
Allport No. 1,	Allport Coal Company,	Cambria,	James D. Allport,	Hastings.
Alpha,	Knight & Company,	Cambria,	H. C. Williams,	Barnesboro.
Big Bend,	Blacklick Mining Company,	Cambria,		
Benton No. 1,	Benton Coal Company,	Cambria,	James H. Allport,	Hastings.
Benton No. 2,	Benton Coal Company,	Cambria,	James H. Allport,	Hastings.
Bens Creek Plane,	E. W. Mentzer,	Cambria,	E. W. Mentzer,	Hollidaysburg.
Bear Rock,	Bear Rock Coal Company,	Cambria,	John Leahey,	Lilly.
Bethel,	Bethel Coal Company,	Somerset,	Joseph Virgin,	Holsopple.
Cymbria,	Cymbria Coal Company,	Cambria,	E. R. Musser,	Barnesboro.
Cresson shaft,	Cresson Coal and Coke Company,	Cambria,	John K. Powell,	Cresson.
Columbia,	Patton Coal Company,	Cambria,	John Ashcroft,	Patton.
Columbia No. 4,	Mitchell Coal and Coke ompany,	Cambria,	Wm. M. Smith,	Gallitzen.
Conemaugh,	Conemaugh Coal Company,	Cambria,	J. P. Wilson,	South Fork.
Caldwell,	Caldwell & Co.,	Cambria,	Thomas M. Forsythe,	Portage.
Delta,	Delta Coal Mining Company,	Cambria,	Lawrence L. Brown,	Hastings.
Dean No. 4,	Cresson and Clearfield Coal and Coke Co.,	Cambria,	P. H. Walls,	Frugality.
Dean No. 5,	Cresson and Clearfield Coal and Coke Co.,	Cambria,	P. H. Walls,	Frugality.
Dysart,	D. Laughman & Co.,	Cambria,	D. Laughman,	Altoona.
Dunlo,	Dunlo Coal Company,	Cambria,	J. P. Wilson,	South Fork.
Excelsior,	George Pearce & Sons,	Cambria,	Robert Pearce,	Puritan.
Euclid,	Euclid Coal and Coke Company,	Cambria,	J. H. Dietrick,	South Fork.
Elmora,	Elmora Coal Company,	Cambria,	John B. Reed,	Carroltown.
Flannigan Run,	Patton Coal Company,	Cambria,	John Ashcroft,	Patton.
Gallitzen shaft,	Taylor-McCoy Coal and Coke Company,	Cambria,	T. E. Dipner,	Hollidaysburg.
Gautier No. 3,	Cambria Iron Company,	Cambria,	W. H. Morris,	Johnstown.
Gallitzen slope,	Mitchell Coal and Coke Company,	Cambria,	Wm. M. Smith,	Gallitzen.
Henriette,	Henriette Coal Mining Company,	Cambria,	John McNulty,	Dunlo.
Hastings,	Chest Creek Coal and Coke Company,	Cambria,	W. C. Shiffer,	Hastings.
Ivy Ridge,	Lovell Coal Mining Company,	Cambria,	P. F. Campbell,	Puritan.
Krebbs,	Listie Mining and Manufacturing Co.,	Somerset,	George J. Kirby,	Somerset.
Lilly slope,	Lilly Coal Company,	Cambria,	C. A. Hughes,	Altoona.
Lancashire No. 3,	Anneston Coal Company,	Cambria,	Thomas Barnes,	Philipsburg.
Lancashire No. 4,	Anneston Coal Company,	Cambria,	Thomas Barnes,	Philipsburg.
Lancashire No. 6,	T. Barnes,	Cambria,	John Barnes,	Barnesboro.
Moshannon No. 5,	Moshannon Coal Company,	Cambria,	E. P. McCormick,	Patton.
New Pardee,	Magee and Lingle,	Cambria,	W. C. Lingle,	Philipsburg.
Oak Ridge,	Campbell and Patterson,	Cambria,	James Campbell,	Hastings.
Puritan No. 1,	Puritan Coal Company,	Cambria,	John Langdon,	Huntingdon.

Puritan No. 2,	Puritan Coal Company,	Cambria,	John Langdon,	Huntingdon.
Patton,	J. J. McGonigal,	Cambria,	J. J. McGonigal,	Carroltown.
Peerless,	J. M. Click & Co.,	Cambria,	J. M. Click,	Carroltown.
Pilgrim,	Lovell Coal Mining Company,	Cambria,	P. F. Campbell,	Puritan.
Rolling Mill,	Cambria Iron Company,	Cambria,	W. H. Morris,	Johnstown.
Richland,	Evans Bell Mining Company, L't'd,	Cambria,	George P. Bell,	Dysart.
Sterling Nos. 8 and 9,	Duncan & Spangler,	Cambria,	J. L. Spangler,	Hastings.
Sterling No. 10,	Duncan & Spangler,	Cambria,	J. L. Spangler,	Hastings.
Sterling No. 11,	Duncan & Spangler,	Cambria,	J. L. Spangler,	Hastings.
Sterling No. 12,	Duncan & Spangler,	Cambria,	J. L. Spangler,	Hastings.
Summer No. 1,	Lukens & Haupt,	Cambria,	R. T. Longwell,	Portage.
Summer No. 2,	Lukens & Haupt,	Cambria,	R. T. Longwell,	Portage.
Sonman shaft,	Sonman Coal Mining Company,	Cambria,	Joseph Patterson,	Myra.
Sonman No. 1,	W. H. Piper & Co.,	Cambria,	Frank Mortenson,	Myra.
Sonman No. 2,	W. H. Piper & Co.,	Cambria,	Patrick Leahy,	Lilly.
Stineman,	Stineman Coal and Coke Company,	Cambria,	W. J. Stineman,	South Fork.
Spangler,	Summit Coal and Coke Company,	Cambria,	C. F. Frazer,	Hastings.
Standard,	Standard Coal Company, L't'd,	Cambria,	Nicholas Evans,	Lilly.
Taylor Bros.,	Taylor Bros.,	Cambria,	Val Eichlant,	Amsby.
Vinton No. 1,	Vinton Colliery Company,	Cambria,	Clarence R. Claghorn,	Vintondale.
Vinton No. 2,	Madeira Hill Coal Mining Company,	Cambria,	Clarence R. Claghorn,	Vintondale.
Webster No. 3,	John E. Scott & Sons,	Cambria,	Philip Hartman,	Ehrenfeld.
Yellow Run shaft,	Berwind White Coal Mining Company,	Cambria,	A. S. Richards,	Osceola Mills.

TABLE No. 2.—*Gives the total number of tons of coal mined and tons of coke produced in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder, &c., used in the Sixth Bituminous Mining District, for the year ending December 31, 1896.*

Names of Collieries.	Location--County.	Total production in tons of coal.	Total production in tons of coke.	Total shipment in tons of coal.	Number days worked	Number persons employed.	Number fatal accidents	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Number coke ovens.
Argyle,	Cambria,	92,213	.....	92,213	313	128	.....	.....	878	1	14	1	.....
Aurora,	Cambria,	40,500	.....	40,300	250	45	.....	.....	120	.....	8	.....	.....
A. J. Haws & Son,	Cambria,	25,140	.....	.....	300	41	.....	.....	150	2	5	1	.....
Anchor,	Cambria,	10,000	.....	.....	90	39	.....	.....	100	1	3	1	.....
Ashcroft,	Cambria,	3,187	.....	3,187	16	97	.....	.....	15	.....	5	.....	.....
Allport No. 1,	Cambria,	28,885	.....	28,885	120	60	.....	.....	380	.....	4	.....	.....
Alpha,	Cambria,	3,500	.....	3,500	80	34	.....	.....	.....	.....	1	.....	.....
Big Bend,	Cambria,	31,356	.....	.....	250	72	.....	.....	363	3	3	2	.....
Benton No. 1,	Cambria,	57,214	.....	57,214	257	98	.....	.....	565	.....	7	.....	.....
Benton No. 2,	Cambria,	14,202	.....	14,202	114	24	.....	.....	205	.....	3	.....	.....
Bens Creek plane,	Cambria,	41,128	.....	41,128	140	97	.....	.....	340	.....	11	.....	.....
Bear Rock,	Cambria,	30,000	.....	.....	200	79	.....	.....	150	.....	7	.....	.....
Bethel,	Somerset,	10,498	.....	10,498	255	21	.....	.....	39	.....	5	.....	.....
Cymbria,	Cambria,	78,036	.....	77,760	180	100	.....	1	429	.....	9	.....	.....
Cresson shaft,	Cambria,	56,154	.....	55,418	230	71	.....	.....	227	3	6	2	.....
Columbia,	Cambria,	68,271	.....	68,271	150	141	.....	.....	275	.....	8	.....	.....
Columbia No. 4,	Cambria,	52,058	.....	52,058	208	102	1	.....	201	.....	9	.....	.....
Conemaugh,	Cambria,	47,684	.....	47,684	313	61	.....	2	477	1	5	1	.....
Caldwell,	Cambria,	3,000	.....	3,000	80	12	.....	.....	.....	.....	1	.....	.....
Delta,	Cambria,	121,546	.....	121,546	210	172	.....	.....	690	.....	8	.....	.....
Dean No. 4,	Cambria,	82,395	6,000	70,000	174	136	.....	.....	200	3	30	2	88
Dean No. 5,	Cambria,	72,067	.....	72,067	174	104	.....	.....	225	.....	6	.....	.....
Dysart,	Cambria,	75,350	.....	75,000	228	129	.....	.....	485	.....	13	1	.....
Dunlo,	Cambria,	25,635	.....	25,635	268	42	.....	.....	357	.....	3	.....	.....
Excelsior,	Cambria,	32,853	.....	32,853	164	80	.....	.....	160	1	7	1	.....
Euclid,	Cambria,	29,212	.....	28,972	224	60	.....	.....	175	1	5	1	.....
Elmora,	Cambria,	87,466	.....	87,166	269	104	1	1	593	.....	7	.....	.....
Flannigan Run,	Cambria,	106,094	.....	106,094	163	184	.....	.....	360	.....	9	.....	.....
Gallitzen shaft,	Cambria,	91,529	25,155	48,481	161	276	.....	1	1,020	7	21	2	240

Gautier No. 3,	Cambria,	27,180	.....	.....	266	41	.....	.....	171	1	1	1	.....
Gallitzen slope,	Cambria,	193,757	71,036	83,844	235	332	1	3	670	5	21	2	172
Henriette,	Cambria,	108,079	.....	105,079	285	165	.....	.....	1,200	3	12	2	.....
Hastings,	Cambria,	104,772	31,801	55,869	262	209	.....	.....	755	2	14	2	152
Ivy Ridge,	Cambria,	24,258	.....	.....	142	44	.....	.....	.....	.....	6	.....	.....
Krebbs,	Somerset,	47,951	.....	47,376	200	78	.....	.....	100	.....	5	.....	.....
Lilly slope,	Cambria,	26,000	.....	24,900	130	55	.....	.....	20	1	6	1	.....
Lancashire No. 3,	Cambria,	47,240	.....	47,240	175	48	.....	.....	200	.....	4	.....	.....
Lancashire No. 4,	Cambria,	73,850	.....	73,850	151	85	.....	.....	300	.....	8	.....	.....
Lancashire No. 6,	Cambria,	32,610	.....	32,610	160	88	.....	.....	165	.....	6	.....	.....
Moshannon No. 5,	Cambria,	22,120	.....	22,120	87	72	.....	.....	140	.....	4	.....	.....
New Pardee,	Cambria,	146,491	.....	140,366	225	174	.....	1	565	1	12	1	.....
Oak Ridge,	Cambria,	46,508	.....	45,709	157	67	.....	.....	186	.....	4	.....	.....
Puritan No. 1,	Cambria,	128,700	.....	128,700	260	155	.....	.....	600	3	18	1	.....
Puritan No. 2,	Cambria,	18,241	.....	18,241	230	30	.....	.....	90	.....	2	.....	.....
Patton,	Cambria,	1,340	.....	.....	128	30	.....	.....	87	.....	2	.....	.....
Peerless,	Cambria,	2,294	.....	2,294	120	18	.....	.....	35	.....	1	.....	.....
Pilgrim,	Cambria,	37,586	.....	37,586	60	68	.....	.....	.....	1	9	1	12
Rolling Mill,	Cambria,	335,060	.....	.....	298	340	2	5	1,687	8	35	5	.....
Richland,	Cambria,	3,730	.....	3,730	119	14	.....	.....	40	1	3	1	.....
Sterling Nos. 8 and 9,	Cambria,	224,500	.....	223,500	180	318	.....	.....	1,152	7	27	2	.....
Sterling No. 10,	Cambria,	10,800	.....	10,800	100	35	.....	.....	65	.....	3	.....	.....
Sterling No. 11,	Cambria,	66,560	.....	66,560	240	86	.....	.....	337	.....	9	.....	.....
Sterling No. 12,	Cambria,	27,600	.....	27,600	150	52	.....	.....	187	1	5	1	.....
Summer No. 1,	Cambria,	52,339	.....	52,270	142	81	.....	.....	.....	1	7	1	.....
Summer No. 2,	Cambria,	46,317	.....	45,640	225	80	.....	.....	.....	2	4	1	.....
Sonman shaft,	Cambria,	184,280	.....	180,974	270	247	1	.....	.....	4	25	4	.....
Sonman No. 1,	Cambria,	104,893	.....	104,893	250	200	1	.....	240	2	16	1	.....
Sonman No. 2,	Cambria,	64,860	.....	64,860	250	123	.....	.....	192	.....	16	.....	20
Stineman,	Cambria,	228,374	.....	226,384	271	302	.....	.....	2,400	2	42	1	.....
Spangler,	Cambria,	34,351	.....	34,351	198	80	.....	.....	400	.....	5	.....	.....
Standard,	Cambria,	26,065	.....	26,065	130	55	.....	.....	.....	.....	7	.....	.....
Taylor Bros.,	Cambria,	5,801	.....	5,600	40	95	.....	.....	30	3	7	2	20
Vinton No. 1,	Cambria,	53,893	.....	51,808	231	58	.....	.....	350	2	3	2	.....
Vinton No. 2,	Cambria,	3,001	.....	2,586	24	20	.....	.....	27	1	.....	2	.....
Webster No. 3,	Cambria,	310,719	.....	310,719	254	360	.....	.....	1,315	6	28	2	.....
Yellow Run shaft,	Cambria,	116,430	.....	117,092	291	167	1	5	630	3	16	2	.....
Total,	.....	4,406,750	133,992	3,684,375	12,517	7,081	8	19	23,475	83	621	53	704

Table No. 3.—*Showing the number of each class of employes at each colliery in the Sixth Bituminous Mine District, during the year 1895.*

Names of Collieries.	Location—County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							
		Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Coke workers.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	Grand total—inside and outside.
Argyle,	Cambria,	1	86	17	2	7	.....	113	1	2	2	.....	8	2	15	128
Aurora,	Cambria,	1	35	.....	.....	5	.....	41	.....	1	.....	.....	2	1	4	45
A. J. Haws & Son,	Cambria,	1	24	.....	1	7	.....	33	.....	.....	2	.....	.....	1	8	41
Anchor	Cambria,	1	30	.....	2	2	.....	35	.....	.....	.....	.....	.....	1	4	39
Ashcroft,	Cambria,	1	75	10	1	4	2	93	.....	1	.....	.....	2	.....	4	97
Allport No. 1,	Cambria,	1	50	3	.....	.....	.....	56	.....	1	.....	.....	2	1	4	60
Alpha,	Cambria,	1	30	.....	1	2	.....	34	.....	.....	.....	.....	.....	.....	.....	34
Big Bend,	Cambria,	1	56	.....	1	3	3	64	.....	2	2	.....	3	1	8	72
Benton No. 1,	Cambria,	1	84	3	1	2	1	92	.....	1	.....	.....	3	2	6	98
Benton No. 2,	Cambria,	1	15	3	.....	1	.....	20	.....	1	.....	.....	1	2	4	24
Bens Creek plane,	Cambria,	1	65	8	1	14	2	91	.....	1	.....	.....	4	1	6	97
Bear Rock,	Cambria,	1	60	5	.....	2	2	75	.....	1	.....	.....	2	1	4	79
Bethel,	Somerset,	1	15	2	.....	2	.....	20	.....	.....	.....	.....	1	.....	1	21
Cymbria,	Cambria,	1	84	3	.....	4	2	96	.....	1	.....	.....	2	1	4	100
Cresson shaft,	Cambria,	1	57	.....	1	5	.....	64	.....	1	2	.....	2	2	7	71
Columbia,	Cambria,	1	110	15	1	5	5	137	.....	1	.....	.....	3	.....	4	141
Columbia No. 4,	Cambria,	1	82	6	1	6	2	98	.....	1	.....	.....	2	1	4	102
Conemaugh,	Cambria,	1	44	5	.....	5	1	56	.....	1	1	.....	2	1	5	61
Caldwell,	Cambria,	1	9	.....	.....	1	1	12	.....	.....	.....	.....	.....	.....	.....	12
Delta,	Cambria,	1	150	4	1	6	4	166	.....	1	.....	.....	4	1	6	172
Dean No. 4,	Cambria,	1	85	12	1	7	5	111	1	2	2	12	5	3	25	136
Dean No. 5,	Cambria,	1	75	10	.....	6	5	97	.....	1	1	.....	5	.....	7	104
Dysart,	Cambria,	1	95	.....	3	14	4	117	1	1	.....	.....	8	2	12	129
Dunlo,	Cambria,	1	36	.....	.....	2	.....	39	.....	1	.....	.....	1	1	3	42
Excelsior,	Cambria,	1	60	7	.....	6	.....	74	.....	1	1	.....	3	1	6	80
Euclid,	Cambria,	1	38	10	1	5	1	56	.....	.....	1	.....	2	1	4	60
Elmora,	Cambria,	1	83	10	.....	4	2	100	.....	1	.....	.....	2	1	4	104

Flannigan Run,	Cambria	1	176	15	1	5	3	177		1			2		2	1	134
Gallitzen shaft,	Cambria	1	361	22	8	20	5	226	1	2	3	46	1		2	56	376
Gautier No. 3,	Cambria	1	50	3	1	1	1	33			1		1		1	4	41
Gallitzen slope,	Cambria	1	381	19	7	16	6	274	1	4	1	49	12		2	51	332
Henriette,	Cambria	1	114	20	14	10	2	132	1	1	2		4		1	13	165
Hastings,	Cambria	1	142	5	2	6	3	190	1	2	2	8	1		1	42	309
Ivy Ridge,	Cambria	1	21	2		4		49								4	44
Krebbs,	Somerset	1	35		2	4		28		2					2	10	53
Lilly slope,	Cambria	1	40	4	1	4		1					1		1	3	35
Lancashire No. 3,	Cambria	1	35	7		1	1	43							1	3	48
Lancashire No. 4,	Cambria	1	70	13		4	2	74								5	86
Lancashire No. 6,	Cambria	1	69	20		6		84		1					1	4	88
Moshannon No. 5,	Cambria	1	60	2		3		68		1					1	4	72
New Pardee,	Cambria	1	122	23	1	7	2	162	1	2	1		3		1	12	174
Oak Ridge,	Cambria	1	53	2		3	1	64								3	61
Puritan No. 1,	Cambria	1	100	15	2	12	1	142	1	2	1		3		1	17	125
Puritan No. 2,	Cambria	1	25			2		28								2	30
Patton,	Cambria		28			1		30									30
Peerless,	Cambria	1	14	1		2		17								2	15
Pilgrim,	Cambria	1	47	3		5		50		1	2		3		2	3	48
Rolling Mill,	Cambria	1	227	20	25	20	8	307	1	3	3		12		4	35	240
Richland,	Cambria	1	10	1		1		11							1	1	14
Sterling Nos. 8 and 9,	Cambria	1	275	8	8	7	4	298	1	2	4		4	4	2	20	318
Sterling No. 10,	Cambria	1	30	2		1		34								1	33
Sterling No. 11,	Cambria	1	67	8	3	4	2	83		1			1		2	3	80
Sterling No. 12,	Cambria	1	40	4		1		48		1	1		2			4	52
Summer No. 1,	Cambria	1	60	4	1	8		74		1	1		4		2	4	81
Summer No. 2,	Cambria	1	60	5		5	1	72		1	2		3		2	8	80
Sonman shaft,	Cambria	1	200	2	9	18	2	232	1	3	4		3		2	17	247
Sonman No. 1,	Cambria	1	127	20	2	20	2	190		1	2		3		3	10	200
Sonman No. 2,	Cambria	1	86	10	2	20	1	113		1			1		3	5	123
Stineman,	Cambria	1	247	5	4	31		286	1	3	3		8		3	16	302
Spangler,	Cambria	1	63	6		2	1	72		1			1		1	3	80
Standard,	Cambria	1	40	4	1	4	2	52		1			1			3	55
Taylor Bros.,	Cambria	1	70		2	6	3	82		2	2		5		3	13	95
Vinton No. 1,	Cambria	1	27	2	4	9		49	1	3	3		8		3	18	58
Vinton No. 2,	Cambria	1	11	1	2			15			1		1		1	2	20
Webster No. 3,	Cambria	1	229	55	11	28	11	335	1	4	7		12		2	25	360
Yellow Run shaft,	Cambria	1	125	7	6	11	5	155		2	3		5		2	12	167
Total,		66	7,181	472	154	439	136	6,148	15	80	70	170	247	41	333	7,081	

TABLE NO. 4.—*List of fatal accidents that occurred in and about the Mines of the Sixth Bituminous Mine District, for the year ending December 31, 1895.*

Date of accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
April 25	George Pace,	Driver,	24	No		Yellow Run,	Cambria,	He was driving a mule and had put some wooden rails on top of empty cars and was riding on the rails when he was caught in a low place doubling him up and injuring his spine. Died October 19th.
May 3	Henry Mabbett,	Miner,	35	Yes		Rolling Mill,	Cambria,	Burned by fire damp which came down to the naked lights owing to a fall of slate. The place had been thoroughly examined by the fire bosses in the morning before the men started to work, who reported no gas.
July 10	John Trichok,	Miner,	24	Yes		Sonman shaft,	Cambria,	This man was dressing up the rib side when a very peculiar slip in the sand rock roof came down and struck him on the back of the head. This accident could have been averted if he had taken precaution.
31	Richard Rundle,	Miner,	60	Yes	2	Rolling Mill,	Cambria	He was mining under a piece of coal which had a loose end, and two slips at the other end. He had a sprag set under the coal between the loose end and the slips; the top of the coal was smooth, and while he was mining under it the coal fell, part of it on the sprag and the other part on him.
31	John Stoker,		14	No		Gallitzin slope,	Cambria,	Killed at foot of slope by clevise-pin breaking and trip going back.

Aug.	7	Edward Diller,	Miner,	24	No	4	Columbia No. 4,	Cambria	While mining in a twelve-foot heading, a piece of coal, about 200 pounds weight fell, striking him on head at base of brain killing him almost instantly.
Nov.	7	John Mehalough,		45	Yes	4	Sonman No. 1,	Cambria,	Killed by fall of rock; an unavoidable accident; left family in Austria.
	16	Simon Closs,		35	Yes	5	Elmora,	Cambria,	Killed by fall of coal; he came back from his working place and cut on side of pillar which he had no auhority to do.

Table No. 5.—*List of non-fatal accidents that occurred in and about the mines of the Sixth Bituminous Mine District, for the year ending December 31, 1895.*

Date of accident.	Name of Person.	Occupation.	Age.	Married.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 10	Frank Fisher,	Miner,	50	No		Gallitzen slope,	Cambria,	Thumb cut by a piece of slate while mining.
14	Bryce Solsbury,	Miner,	16	No		Elmora,	Cambria,	He had been sent out for powder and while returning with another boy, they began to play with it; a spark from one of their lamps ignited the powder which burned this one severely.
16	W. H. Gates,	Driver,	22	No		Cymbria,	Cambria,	Leg broken below the knee by cars leaving the track while running down grade.
Mar. 11	Joseph Teresa,	Miner,	30	Yes		Gallitzen slope,	Cambria,	Hip dislocated by piece of coal falling on him.
30	Samuel Flowell,		16	No		Gallitzen slope,	Cambria,	Crushed between cars and pillar on inside of parting.
April 29	Lewis Miller,	Miner,		No		New Pardee,	Cambria,	Leg broken by fall of rock at face of room.
May 3	Frank Mitchell,	Miner,	40	Yes		Yellow Run,	Cambria,	Collar bone broken by fall of coal.
3	George Pomatites,	Miner,	38	No		Rolling Mill,	Cambria,	These three men were slightly burned by an explosion of fire damp while they were working in a pillar. There had been one fall of roof; a second fall drove some gas down which came in contact with their naked lights.
3	George Balustie,	Miner,	32	No		Rolling Mill,	Cambria,	
3	Rudolph Berembreet,	Miner,	29	No		Rolling Mill,	Cambria,	
June 25	Andy Durro,	Miner,	35	No		Yellow Run,	Cambria,	Severely crushed between a car and rib of coal while running the car out of his room.
26	Andy Stoweski,		30			Yellow Run,	Cambria,	Crushed on back and legs by fall of rock.
July 31	Thomas W. Booth,		16			Yellow Run,	Cambria,	Leg caught between two mine cars and severely bruised.

Oct.	9	Bert Lambertson,	Miner,	15			Conemaugh,	Cambria,	Was riding on trip going down to the tipple and fell under the cars and had his arm and body severely injured.
	12	Robert Hazleton,	Miner,				Conemaugh,	Cambria,	Collar bone and one rib broken by fall of coal.
Nov.	26	Michael Sibernio,	Laborer,	33	Yes	1	Rolling Mill,	Cambria,	Fracture of thigh; he was riding out of the mine when a coupling broke; the cars suddenly bumped against each other and he was caught between them.
	26	Andrew Mihalko,	Laborer,	50	Yes	4	Rolling Mill,	Cambria,	Compound fracture of leg and contusions; he was hurt at the same time as the above man.
	28	Thomas Proud,	Miner,	43	Yes		Yellow Run,	Cambria,	Crushed by fall of coal.
Dec.	3	John Parson,	Miner,				Gallitzen shaft	Cambria,	Severely injured on arm by fall of coal.

SEVENTH BITUMINOUS DISTRICT.

(ALLEGHENY, WASHINGTON AND BEAVER COUNTIES.)

Idlewood, Pa., February, 1896.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: In accordance with the requirements of the mining law, approved May 15, 1893, I herewith submit for your consideration, my annual report for the year ending December 31, 1895.

I am pleased to report that the prospects for the coal business in this district, are now much brighter than when I submitted my last report, but taking into consideration the fact that the producing capacity of the district has increased enormously during the past five years, I do not anticipate that very many of the mines will be operated to their full capacity in the near future.

A very large quantity of the coal mined during the summer months is shipped to the lake ports for the northwestern trade, and it naturally follows that the mines largely dependent upon this particular trade must of necessity run on short time, from the time lake shipments are suspended in the fall, until they are again resumed the following spring; hence a large number of the miners have very little employment during the winter season.

The operators and miners seem to have come to an amicable settlement as to the mining rates and other differences that had existed between them, and which have caused no small degree of contention during the past three years, and let us hope that the settlement will be permanent and that peace and harmony will prevail between them hereafter.

Eighteen persons lost their lives in and about the mines during the year, twelve having been killed by falling slate, four from having been run over by coal cars, and two by explosions of gas.

Of the whole number of deaths from falls of slate, only about five can be classed as purely accidental; five others could have saved themselves if they had exercised proper care, and at least two came to their death because they were incompetent to recognize the danger, and were not familiar with the methods of self protection.

Smith, the Hungarian miner, who was killed in the Morgan mine by an explosion of gas, came to his death by his own folly, or perhaps it would be more correct to say that the poor fellow knew absolutely nothing about the dangers attending the mining of coal, otherwise he would not have gone into the mine in the manner he did, knowing full well that it had been closed down, and ventilation suspended for about two weeks.

Bagalett, who died from the effects of injuries received in a gas explosion in the Brier Hill mine, lost his life from causes not directly connected with the ordinary danger always attendant upon the mining of coal. The gas which caused this explosion escaped into the mine from an oil well that is drilled down through the mine workings, and we may here state that it was extremely fortunate that this accident was not attended with much greater loss of life. I trust I may not have to record any further loss of life from similar accidents in the fututre, but of this I have grave doubts.

In the mine above mentioned, and in a number of other mines in the same vicinity, the territory is perforated with oil and gas wells; some of these wells are drilled through the working places, some are drilled through the old abandoned works and others are drilled through the solid coal. By exercising proper precaution, danger may be averted (for the present) from the wells which are in the solid coal, that is in territory where they can be located and marked on the mine maps; but the wells that are drilled through the workings and abandoned parts of the mine, I regard as a source of ever present danger, which may at any time be the cause of very serious results.

I have dwelt at some length upon this subject in some of my previous reports to your department suggestive of the necessity of legislative action thereon, hence I deem it unnecessary to offer any further comments at this time. (For further particulars in relation to the gas explosions above mentioned we refer the reader to our comments upon the accidents in another part of this report.)

Among the persons who are killed in the mines every year there are a number of sojourners from other countries who do not speak our language, and sometimes we cannot ascertain whether they leave families behind or not, consequently the number of widows and orphans reported may not always be correct. As far as I am informed, there were eight wives made widows and seventeen children orphaned by the casualties which occurred in this district during the past year, three of the widows and eight of the orphans being residents of foreign countries.

The production of coal is about 155,000 tons more than for the year 1894, and the number of employes is about the same as for that year.

By referring to the statistical report it will be noticed that very few of the mines were operated at nearly full time, and quite a number were in operation only about half time.

I am pleased to say that with some few exceptions, the sanitary condition of the mines in the district is generally satisfactory.

In three different cases, I have, during the year, found it necessary to invoke the aid of the courts in enforcing the law; in one case the action was against a number of miners for using crude petroleum oil in the mine for lighting purposes; the second case was an action against a mine manager for failing to keep safety gates on top of a shaft in good repair, so that they might be effective for the purpose for which they were provided. I also found it necessary to take legal action against an operator for neglect in not making and keeping in repair a second passageway leading from the escape outlet into the body of the mine, as required by law.

I fully realize the necessity of filing my reports in your department as early as possible, so as to aid you in preparing it for publication at an early date, and I regret that I cannot be more prompt in the matter. I find it necessary every year to make several written requests to certain operators, and oftentimes to go to their office personally before I can obtain their annual returns, which is the reason that my reports are delayed, but I presume that our inconvenience and loss of time is of no concern to the parties above mentioned.

In the present instance I am compelled to make an estimate in several cases, because I have failed to obtain the proper returns, but I believe the estimates are about correct.

Total production run of mine coal in tons of 2,000 pounds,	4,693,508
Total production in tons of coke,	5,000
Number of mines in district,	72
Number of employes inside,	9,073
Number of employes outside,	765
Total number of employes,	9,838
Number of persons killed in and about the mines,	18
Number of non-fatal injuries,	55
Number of wives made widows by above fatalities,	8
Number of orphans from same cause,	17
Number of tons of coal produced per life lost,	260,750
Number of tons of coal per person injured,	85,337
Number of persons employed per life lost,	546
Number of persons employed per non-fatal injury,	179
Number of horses and mules in use,	644
Number of steam boilers in use,	144

Causes of Accidents.	Fatal.	Non-fatal.	Widows.	Orphans.
By falls of slate,	12	21	4	12
By falls of coal,	.....	10	.....	.....
By mine cars,	3	18	2	1
By explosions of gas,	2	5	1	1
By miscellaneous causes,	1	1	1	3
Total,	18	55	8	17

A brief description of the condition of the mines, and of the circumstances under which each fatal accident occurred, together with the usual statistical tables will be found in their proper places in this report, all of which is respectfully submitted.

Yours respectfully,

JAMES BLICK.

Mines Abandoned, New Mines Opened and general Improvement Made at the Mines of the Seventh Bituminous District During the Year.

Two mines, viz: Beach Cliff and Fort Pitt have been worked out and abandoned.

Lick Run.—Is a new mine opened by the Keeling Coal Company on the Wheeling division of the Baltimore and Ohio railroad. A tipple has been erected and the main entries driven into the hill for a considerable distance. A temporary furnace has also been erected to produce the ventilation.

The First Pool Monongahela Gas Coal Company, has sunk a new shaft and built a very substantial steel tipple with all the latest improvements at Willock Station on the Wheeling division of the Baltimore and Ohio railroad.

Margerum.—Is a new mine opened at Imperial, on the Montour Run railroad. A tipple, incline plane and other improvements necessary for its operation were completed early in the year.

A new mine has been opened and equipped at the Fort Pitt station on the Pan Handle railroad.

At the Cherry mine a new ventilating furnace has been built.

At Bridgeville a mine ventilating fan of the Vulcan-Guibal type, 16 foot diameter has been erected and set in motion.

At the Moon Run mine a double inlet Capell fan 8 feet in diameter, and 7 feet wide has been provided. I understand that this is the

first improved Capell fan erected in the United States. This type of fan is, I consider, far superior to any other ventilator that I am acquainted with for the small airways of our bituminous mines, and parties desiring to equip their mines with new ventilators, would do well to inquire into the merits of this type of fan. The fan was built by Carlin Bros., Allegheny City.

At Hite mine a single inlet Capell fan 8 foot diameter has been provided and is ready for operation.

The Nickle Plate mine has been equipped with a mining machine plant of the Harrison type, operated by compressed air.

The Beadling mine has also been equipped with a mining plant similar to the above.

The Essen mines Nos. 2 and 3 have been equipped with a very costly mining and haulage plant, both being operated by electrical power.

A new shaft about 100 feet deep has been sunk at the face of the main face entry in the No. 3 mine to be used as an inlet for the ventilating current.

For further information in regard to the above improvements, refer to our remarks upon the condition of the various mines.

DESCRIPTION AND GENERAL CONDITION OF THE MINES IN THE SEVENTH BITUMINOUS DISTRICT FOR THE YEAR 1895.

Mines on and Near the Monongahela River.

Bellwood.—This mine when last inspected was found in a very favorable condition.

Quantity of air in circulation, 35,000 cubic feet per minute, being well distributed to the working places; the drainage is also in good condition.

This mine was in operation only about three months during the year.

Calhoun.—This mine has been operated very steadily throughout the past year, but it is very seldom that they employ a sufficient number of men to bring them under the provisions of the law.

When last inspected, the mine was in very fair condition. The ventilating furnace will produce about 12,000 feet of air per minute.

Streets Run.—The general condition is favorable. About forty men are employed, and the quantity of air circulating through the mine is about 16,000 feet per minute, which is ample for all purposes.

Hays Street Run Nos. 2 and 3 and the Becks Run Mine.—These mines have resumed operations after a shut down of several years, but on account of the very low stage of water in the river, caused by the long drought of the past season, they were unable to run the mines more than about two months during the year.

Each mine when inspected was in good condition. Quantity of air passing in Nos. 2 and 3, 72,000 feet per minute, and 40,550 feet were circulating through the Becks Run mine. The drainage in each mine was also good.

First Pool Nos. 1 and 2.—Everything about these mines is kept in first class order. The health and safety of the employes is well cared for in every particular. Both mines are ventilated by the same fan, which will produce upwards of 100,000 feet of air per minute, this being ample for present needs.

No. 2 is a new operation, the shaft having been sunk during the past summer. The tipple machinery, and all other equipments are among the best obtainable.

Both mines combined are a very valuable property, and are destined to become very large producers of coal in the near future.

Lick Run.—This is a new operation, opened during the past year by the Keeling Coal Company.

As yet, only a few men are employed in driving entries. The general condition of the mine is favorable. A small temporary furnace has been provided to produce ventilation for the time being.

Walton.—At the time of my last visit to this mine, everything was found in favorable condition, the ventilation was good and the drainage was well arranged so that all parts of the workings were kept as dry as possible.

Quantity of air produced by the fan, 52,000 feet per minute.

Castle Shannon.—During the early part of the year, the distribution of the air current to the different parts of the workings was not satisfactory, but at the time of my last visit, I observed that considerable improvement had been made and all parts of the mine were at that time reasonably well ventilated.

Quantity of air produced by the furnace, when last measured, 24,800 feet per minute. This volume of air is sufficient for all needs at the present time, if properly conducted to the working places.

Ormsby.—The general condition of this mine is favorable. They have of late, had considerable difficulty with the furnace upcast shaft, it having caved or fallen in necessitating the lining of the shaft with a brick wall from the bottom to the surface, a distance of 260 feet.

This mine was operated steadily the greater part of the year, the product being used for mill and domestic purposes in the city of Pittsburg.

Quantity of air in circulation when last measured, 33,000 feet per minute, but at the present time, while they are bricking the shaft, the furnace is not in use, and the small fan erected for temporary use, will not produce quite as large a quantity of air as that given above.

Enterprise.—The general condition of this mine is good. A good supply of fresh air is forced through the various working places. The drainage is also good.

Average quantity of air passing near the face of the different entries is about 10,000 feet per minute for each entry and the total quantity produced by the fan is about 100,000 cubic feet per minute.

Venture.—No. 1 section of the workings is in good condition, and a good sweeping air current is passing near the face of the entries and other working places. But in No. 2 section, there is considerable difficulty experienced in keeping the workings free from blackdamp. This is accounted for from the fact that this portion of the mine is almost surrounded by old abandoned territory from which the above noxious gas is constantly escaping, in large volumes and mingling with the air current.

Quantity of air at the outlet, 56,000 cubic feet per minute.

Fox.—Is in fairly good condition, except in one of the butt entries where I observed that two or three rooms were turned away in advance of the ventilating current. Quantity of air passing at the fan, 16,000 cubic feet per minute, this volume of air is more than sufficient for all requirements if forced to the working places, for there are not often more than thirty persons employed in the mine.

Mines on the Panhandle Railroad.

Idlewood.—The condition of this mine is about as good as it has been for some time past, but the system of operation and the general layout of the workings are somewhat crude. Consequently the airways leading forward to face of the mine are not in the best condition, a fact which makes it difficult to conduct the ventilating current to the working places in sufficient volume to keep them in a healthful condition.

Quantity of air at the outlet, 14,350 feet per minute, but I found only 5,000 feet passing at the extreme end of the workings, the remainder having been lost by escaping through the old workings into the return airway.

The ventilating conditions will be improved in the near future by making an inlet at the face of the mine.

Grant.—Is in reasonably good condition, but there is plenty of room for improvement.

The roadways are usually wet and muddy, and the ventilation in

the summer season is not of the best. Quantity of air produced by the furnace is about 16,000 cubic feet per minute.

Cherry.—During the past summer, the ventilation in one section of the mine was below the requirements, but at the time of my last visit, they were building a new ventilating furnace which is now completed, and I am informed that the quantity of air now circulating through the mine is sufficient for all needs.

Previous to the erection of the new furnace, I measured a volume of 12,100 cubic feet of air per minute passing at the outlet.

On June 29th an oil pipe line which is laid over this property and buried about two feet beneath the surface, was broken by the subsidence of the strata where the coal had been mined out, and the oil flowed into the mine through the broken strata and was accidentally ignited by one of the miners in his working place as soon as it entered the mine. This resulted in one miner having been slightly burned and the timber and coal was set on fire, necessitating the immediate sealing of that part of the mine. Fortunately the break occurred near an opening to the surface, which had been made for drainage, and the oil flowed out of the mine through the opening as fast as it came in through the broken strata. Had the opening not been there, to give the oil free egress, in all probability, the mine fire would have gotten beyond control, but under the conditions that existed, it was overcome without much difficulty, after burning about one week.

It was noticed during the progress of the fire, that considerable quantities of explosive gas were generated from the burning oil, but by means of bulkheads, this gas was kept back from other parts of the mine and forced out through a small aperture left in the bulkhead at the drain opening.

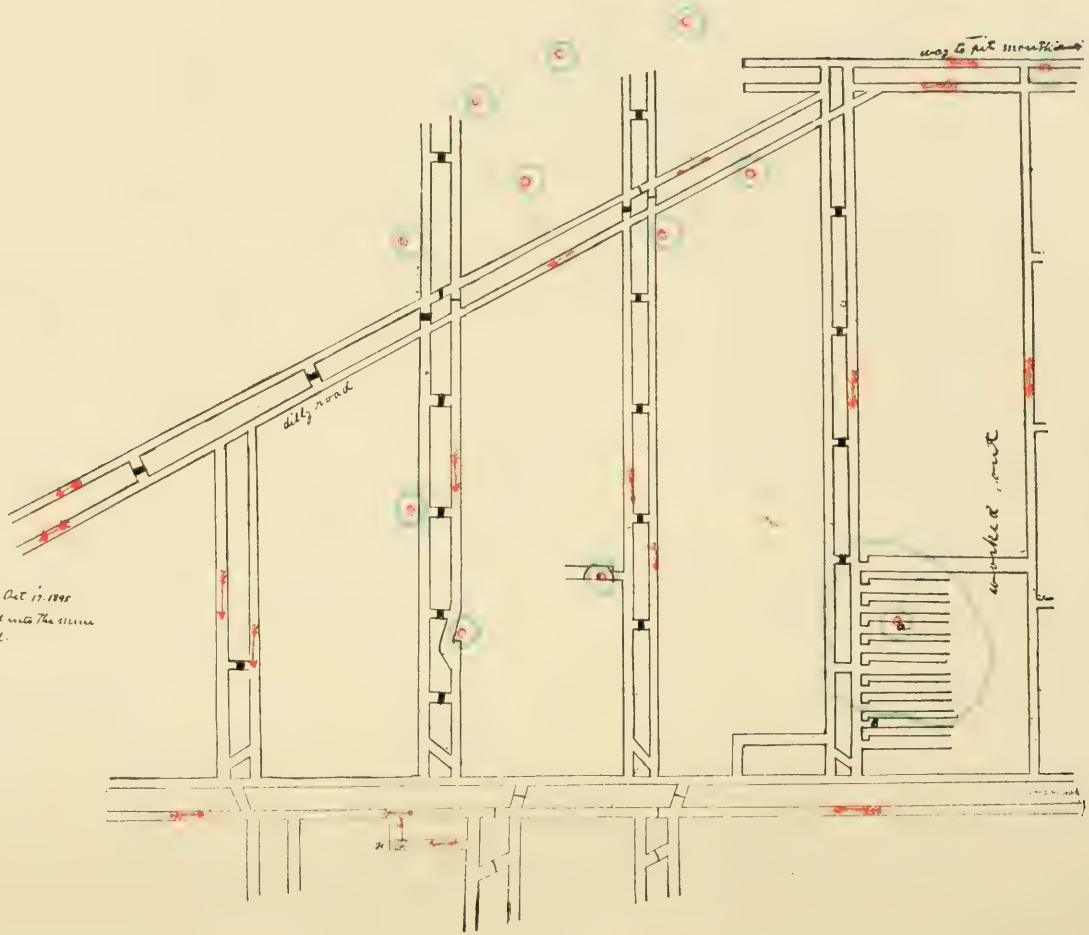
It may be said that the mine owners had no knowledge of the existence of the pipe line overlaying their mine, it having been placed there a number of years before they purchased the property.

Champion.—The ventilation of this mine is not of the best; the volume of air produced by the two small furnaces is not quite sufficient to maintain a pure, healthful atmosphere in all parts of the mine, but this defect will be remedied in the near future by the introduction of a more powerful ventilating apparatus.

Total volume of air passing through the mine when last measured, 28,000 cubic feet per minute.

Nickel Plate.—Is in reasonably good condition. The surface strata above the coal is very shallow, consequently where the coal is mined out, the strata breaks up to the surface allowing a large volume of water to pass into the mine during wet weather, and this, together with several local swamps inside of the mine makes it very difficult to keep the roadways well drained and in good condition.

Seventh Bituminous District



Section of Brier Hill Mine
showing location of gas explosion Oct 17. 1905
A. oil well where gas escaped into the mine
B. point where gas was ignited.
H. furnace shaft
■ = stoppings
| = doors
→ = direction of air current
— = line of creep
○ = Oil and gas wells

Quantity of air at outlet, 31,000 feet per minute, but its distribution to the various parts of the mine could be somewhat improved upon.

Midway.—The condition of this mine is very favorable in all respects. Quantity of air in circulation, 36,000 feet per minute.

Primrose and Jumbo Mines.—Both of these mines are operated under the same general management, and the conditions of each mine is favorable, the health and safety of the employes being well cared for.

Quantity of air passing into the first named mine is 45,900 feet and 60,000 feet per minute is passing into the Jumbo mine, and being fairly well distributed to face of workings in each case.

Brier Hill.—On my last visit to this mine, I measured 52,500 cubic feet of air per minute passing at the outlet, and all parts of the mine are well supplied with a good sweeping air current.

I may say that throughout the whole time this mine has been under my jurisdiction, I have had no cause to complain about its management.

The ventilation and drainage have always been satisfactory, and the health and safety of the employes have at all times been considered.

But notwithstanding all the skill and care exercised by the officials, I cannot refrain from expressing my anxiety in regard to the permanent safety of the men employed in this mine, but the danger I apprehend is from a source over which the mine manager has little if any control.

I allude to the danger from the large number of oil and gas wells that have been drilled through the territory from which coal is being mined.

On October 17th gas escaped into the mine from one of these wells and was ignited by an open light in the hands of one of the miners, which resulted in the death of one man and the serious injury of two others, and it was very fortunate that it did not terminate in a terrible disaster. For further particulars about the matter, I refer the reader to my comments on this accident in another part of the report. At this point it may be proper to state that the danger above mentioned is common to all mines in this vicinity.

Laurel Hill Mines Nos. 1, 2, and 4.—The No. 1 mine is in better condition than for some time past.

A traveling way (independent of the rope haulage road) has been made from the body of the mine to a point near the main entrance; this passage is also used as an additional air way, so that it provides a safe way of egress and ingress, and at the same time, affords an

opportunity for the passage of larger volumes of air through the workings.

At the time of my last visit, the air current in one section of the mine was not conducted forward to face of workings as well as it might have been; this defect was the result of the stoppings and doors (of which there is a large number) being somewhat out of repair.

The mine workings extend over a large area, and all the details of management require strict and constant attention in order to keep the condition of the mine equal to the requirements.

Quantity of air in circulation when last measured, 90,000 feet per minute.

The condition of No. 2 mine, although somewhat improved, is not by any means what it should be.

The ventilation is fairly good, but the drainage and other matters pertaining to the general condition of the mine are far from perfect.

Quantity of air in circulation, 30,000 feet per minute, which can be increased at any time if necessary.

The No. 4 mine is not in operation at the present time, and it has not been operated very steadily during the past year.

The inside conditions are not by any means beyond improvement; the roadways are wet and muddy, and at the time of my last visit, the air current in some parts of the mine was not being properly conducted forward to the face of the workings.

Quantity of air passing into the mine, 60,000 feet per minute.

The management of these mines has been placed in the hands of a practical and skillful manager, but it will require a long time and considerable expense to overcome former mistakes and put them in a satisfactory condition.

National.—At the time of my last visit, all parts of the mine were reasonably well ventilated, but I observed that the traveling way was in bad condition, having been obstructed to a considerable extent by water and roof falls, and seemed to be receiving very little attention from any one.

I instructed the mine foreman to cause it to be cleaned and properly drained forthwith.

Quantity of air passing through the workings, 19,500 feet per minute.

Oak Ridge. The ventilation of this mine needs improvement, the volume of air produced is insufficient to maintain a pure, healthful atmosphere in all parts of the workings, especially in the summer season, but it is the intention to provide a more powerful ventilating apparatus forthwith.

Quantity of air in circulation, 15,500 feet per minute.

Boyd.—At the time of my last visit, the ventilation was slack, as

the approach leading from the furnace to the upcast shaft was obstructed by slate which had fallen from the shaft; this prevented a free flow of the current of air from the furnace to the outlet.

Quantity of air passing out, 13,000 feet per minute, but if the shaft was kept clear of obstructions, and a stack built on top of it, the above quantity could be doubled, but seeing their tardiness in matters pertaining to efficient ventilation it would almost appear that any expenditure in that direction might be considered as an unprofitable investment.

I am constrained to this opinion from the fact that I have on several occasions, suggested that the above improvements be made.

Mansfield and Erie.—The condition of this mine is very unfavorable, for producing coal, but its sanitary condition is somewhat better than formerly.

They have built a new ventilating furnace, but it will not produce more than about 13,000 feet of air per minute.

The mine has been idle for some time past.

Pine Ridge.—This is a new operation employing at the present time about twenty-five miners.

When last inspected its condition was reasonably good.

Quantity of air passing, about 5,000 feet per minute.

Mines on the Chartiers Valley Railroad.

Mansfield No. 2.—This mine has been found in fairly good condition at each examination made during the year; all parts of the mine being reasonably well ventilated, and proper attention given to all matters pertaining to the health and safety of the employes.

Quantity of air passing at the outlet when last measured was 82,000 cubic feet per minute.

Nixon.—The volume of air passing through this mine when last measured was 35,100 cubic feet per minute, being well distributed to the different parts of the mine. The drainage is also good, and I have no complaints to make in regard to the management of the mine.

Leasdale.—The sanitary condition of this mine has been very unsatisfactory throughout the year, but they are at the present time sinking an air shaft and will build a furnace thereat.

When this improvement is complete, all cause of complaint will be removed.

Quantity of air in circulation when last measured, about 5,000 feet per minute.

Summer Hill.—The ventilation of this mine has of late been rather insufficient, but they are sinking a shaft near the face of the workings, which will be used as an inlet for the air current.

This will be a great improvement, and will increase the volume of air passing through the mine, very materially.

Quantity of air passing into the mine when last measured, 38,000 feet per minute, and in a general sense it may be said that the condition of the mine was such as not to leave very much cause for complaint.

Bower Hill.—The condition of this mine is reasonably good, but an increase in the volume of air would be beneficial. This will be forthcoming in the near future by means of a new inlet now being driven to the outcrop at the face of the workings.

When this opening is made, the length of airways will be shortened nearly one-half, and the air volume will be increased in proportion.

Quantity of air passing when last measured, 28,000 feet per minute.

Bridgeville.—The operators have provided a 16 foot Vulcan fan to produce the ventilation, and the mine is now in good condition.

Quantity of air in circulation when last measured, 20,000 feet per minute.

Hastings Slope.—Is not in very fair condition, the ventilation needs to be increased, and about the only way this can be done is by providing a more powerful ventilator.

Quantity of air in motion through the mine is about 10,000 feet per minute.

Boon.—The sanitary condition of this mine is favorable. At the time of my last air measurement, the furnace was passing 18,720 cubic feet of air per minute, which was reasonably well distributed to face of workings.

Allison.—At the time of my last visit, the mine was in very fair condition, the quantity of air in circulation having been 17,280 feet per minute and its distribution to the working places being reasonably satisfactory.

Enterprise No. 2.—They have not made much progress with their developments during the past year.

They are driving toward the old mine with the intention of connecting the two mines so as to obtain a better drainage outlet.

Quantity of air in motion, 14,200 feet per minute.

The tipple was destroyed by fire some time ago, causing a suspension of operations for several weeks.

Northwestern.—Is in fairly good order at the present time, but the time is not far distant when the present ventilator will need to be replaced by one more powerful.

Quantity of air in circulation, 14,000 feet per minute.

Morgan.—When last inspected the condition of this mine was not satisfactory, the roadways were wet and muddy, and the air current was not properly conducted forward to face of workings.

Quantity of air passing into the mine, 40,000 cubic feet per minute, which is sufficient for all purposes if properly distributed.

Standard.—This mine has not been operated very steadily for some time past. Its sanitary condition is reasonably good.

Quantity of air passing into the mine when last measured, 35,000 cubic feet per minute.

Creedmore.—Several air bridges have been built during the year, which has enabled them to remove some of the doors from the main entries, and also to conduct the air current forward to the face of the mine much better than formerly.

At the present time all parts of the mine workings are supplied with plenty of fresh air, and the drainage and other matters pertaining to the health and safety of the employes are in fairly good condition.

Quantity of air at the outlet 57,600 cubic feet per minute.

Ridgway Bishop.—I have no complaints to make in regard to the sanitary condition of this mine.

All parts of the mine are reasonably well ventilated and the health and safety of the employes are well cared for.

Average quantity of air passing through the mine is about 40,000 feet per minute, but the fan can produce more than double this quantity if necessary.

Mines on the P. C. & Y. R. R.

Pan Handle.—On my first visit to this mine the air current passing the face of the mine was inadequate. The fan was not driven fast enough, as it is of very weak construction and cannot be driven at a very high speed.

I directed the foreman of the mine to see that the speed of the fan was increased to about 70 revolutions, and since that time it has been driven at about that speed, but some time ago the fan shaft broke near its center, causing operations to be suspended until a new shaft was provided and placed in position.

This ventilating machine was, I think, built at Brazil, Ind., and is 16 feet in diameter and would be all right for a small mine, but where workings are extensive and a large number of men are employed this type of fan does not give very good results; simply because its temporary construction will not admit of its being driven at a speed sufficient to produce the required air volume.

Quantity of air passing into the mine when the fan is being driven at 70 revolutions is about 45,000 feet per minute.

Essen No. 1.—When last visited, this mine was in good order. All parts of the workings were well supplied with fresh air, and everything pertaining to the health and safety of the miners was well looked after.

Quantity of air passing at the fan, 61,000 feet per minute.

The tipple, engine house, fan and machinery were destroyed by fire in the month of September, and operations have been suspended since that time.

Beadling.—Although this mine is provided with a good fan, the results are not what might be expected. The fan is 25 feet in diameter, and when running at 40 revolutions, the volume of air produced is only 42,000 cubic feet per minute, and while this quantity is about sufficient for the mine at the present time, it is only about half what the fan should produce when running at the above speed.

The defect is not in the fan, but is due in a very large measure to the contracted condition of the fan shaft, and the main airways leading into the body of the mine. Of late some improvements have been made in the airways, which may in the future, somewhat increase the flow of air current through the mine.

It must be said that the details in management in matters pertaining to the health and safety of the employes have not been attended to as closely as they should have been.

Pittsburg Fuel No. 2.—This mine is in very poor condition for producing coal, and the sanitary conditions are not any better than they should be.

Quantity of air in circulation when last measured, 15,500 cubic feet per minute. This mine has not been in operation for some time past.

O. I. C.—This mine was in pretty good condition when last inspected. Quantity of air passing near the face of the mine entries, 8,000 feet per minute, and 15,000 feet per minute were passing at the outlet.

Essen No. 2.—Is not in the best condition as regards ventilation, the velocity of the air current not being sufficient to keep the working places free from powder smoke.

Quantity of air at outlet will average about 16,000 feet per minute.

Essen No. 3.—The ventilation of this mine is also below the requirements, but they are sinking a shaft at the face of the mine which will be used as an inlet for the air current. This improvement will increase the flow of the air current through the workings, and will to a certain extent remove the defect in the ventilation, but I do not expect to see perfection in this respect until a more powerful ventilating machine is provided.

Quantity of air passing at outlet when last measured, 28,000 feet per minute.

Electrical power is used in both Nos. 1 and 3 mines for undercutting the coal and for haulage. The haulage locomotives seem to be giving satisfaction, but probably the mining machines have not

been in operation for a sufficient length of time to prove whether they will be a success or not; personally I do not think that the conditions of the Pittsburg coal bed are favorable for this type of machine.

Federal.—Is in favorable condition. All parts of the mine are well ventilated, and other sanitary requirements are in good condition.

Quantity of air in circulation when last measured, 48,000 cubic feet per minute.

Federal Spring.—On my last visit I observed that a number of the refuge holes on the main hauling road, were full of slate which rendered them useless for the purpose for which they were intended. In other respects, the conditions were reasonably satisfactory.

Quantity of air in circulation, 14,000 feet per minute.

Beach Mount.—This mine is now in fairly good condition. The workings are more compact than formerly, and the air current is conducted forward to the face of the mine much better than for some time past.

Quantity of air passing through the mine, when last measured, 16,640 cubic feet per minute.

Hickman.—When last inspected was found to be in fairly good condition, with 30,000 cubic feet of air per minute passing through the workings.

This mine has been in operation, only about five months during the the year.

Moon Run.—The condition of this mine is very favorable. The workings are laid off in three different sections, Nos. 1 and 3 sections are ventilated by furnace power.

Quantity of air in No. 1 section, 30,000 feet per minute and 17,600 feet per minute is passing in No. 3 section.

In each case the air current is properly distributed to the working places.

No. 2 section is ventilated by a Capell fan, which was erected early last spring.

This fan is 8 feet diameter and 7 feet wide with a double inlet, and is the first of its kind built in the United States, but since it has been set in motion, several have been ordered, and some of them are now in operation in the Pittsburg region.

These fans are built in Allegheny City by Carlin Brothers under arrangements made with the patentee.

We believe that this type of fan is the most efficient ventilating machine on the market, for the bituminous mines, where the area of the airways is limited in many cases to about 45 square feet or less.

These fans are so strongly constructed that they can be driven to

almost any speed required without fear of breaking. Three hundred revolutions is a safe average speed for the 8 foot fan in question.

I have measured an air current of 108,000 cubic feet per minute with a speed of 208 revolutions W. G. 1. 1."

In comparing the work done by this fan with other fans in use, I can safely say that the 8 foot Capell is about equal to any 25 foot fan now in use in this district, and far superior to some of them, beside the first cost is considerably less, and I can safely suggest for the benefit of parties operating mines in the bituminous regions that it would be well to examine into the merits of this fan, before purchasing one of another kind.

Montours.—The general condition of this mine when last inspected was satisfactory.

Quantity of air in circulation, 35,000 cubic feet per minute, being fairly well distributed to the working places.

Margerum.—This is a new operation located at Imperial. During the early part of the year, its conditions were satisfactory, but at the time of my last visit, I observed that the air current was not properly conducted forward to the face of the entries, the doors being left open most of the time and the quantity of air in circulation, 12,000 feet per minute is inadequate for the number of men employed.

Mines West of the Allegheny River.

Pine Creek.—The velocity of the air current near the face of some of the entries is not sufficient to drive out the powder smoke when much blasting is being done.

The coal bed is low and hard, and requires the use of considerable powder to dislodge it, showing the necessity of a brisk air current at face of workings in order to maintain a pure healthful atmosphere.

The fan was forcing into the mine, an air current of 29,500 feet per minute when last measured.

At the present time, the prospects for producing a large output of coal are not very bright.

Hite.—They were at the time of my last visit, erecting an 8 foot single inlet Capell fan. When this fan is set in motion it will produce plenty of air for all purposes.

The ventilation previous to this time had been produced by a furnace which was capable of producing all the air required previously, but it having become necessary to sink a shaft at the dip of the workings for a pumping station, it was considered best to abandon the furnace and provide a fan at the pumping shaft.

As more men are employed than formerly, an increase in the air volume will be an improvement in the right direction.

West Tarentum.—Is not in good condition. They are at the present time driving an entry to the out-crop for a second passage-way for the men to travel to and from the mine.

During the winter season only, they employ a sufficient number of men to bring the mine under the provisions of the law, but there are prospects of a larger production of coal in the near future, and this will necessitate the employment of more miners.

Quantity of air in circulation, 6,800 feet per minute.

Brekenridge.—Is in a favorable condition. Quantity of air passing at the outlet, 20,000 cubic feet per minute, reasonably well distributed to the working places.

Natrona.—This mine is also in fairly good condition, but is expensive to operate, the coal being very low and hard to mine.

The workings are driven a long distance into the hill, requiring a large number of mules to haul the coal to the outside.

Quantity of air passing in No. 1 section, 16,000 feet per minute, and 12,000 feet per minute is passing in No. 2 section.

DESCRIPTION OF FATAL ACCIDENTS IN THE SEVENTH BITUMINOUS DISTRICT DURING THE YEAR 1895.

Edward Long, a miner, 18 years of age and single, was instantly killed in his working place by a fall of slate in the Champion mine on January 9.

The piece of slate which fell on him measured 18x18 inches x 7 feet and would weight about 2,500 pounds.

The loose slate was surrounded by a free natural slip which extended to and intersected about nine inches above the base of the roof coal, and was consequently hidden from view.

There was one prop set for support, but it was placed too near the end of the slate to be of any practical benefit.

The man had a short time previously fired a blast in the coal which had very probably penetrated into the slip in the slate, moving it somewhat from its original position. He was at the moment of the accident, taking down some of the loose coal broken by the shot which when taken down parallel to the slip in the slate, suddenly gave way, throwing out the prop which was set near the end, and falling upon the man, causing instant death.

While the accident might possibly have been averted by a close inspection after firing the blast, yet it cannot be said that any gross carelessness was shown.

James Miller, a miner, 65 years old, was killed by falling slate in the Beadling mine on February 13.

He had just finished his room, and was at the time of the accident taking out the props and it would appear that he was standing close to a prop and trying to knock it out with his sledge hammer, and after loosening the prop in this manner and before he could step back to a place of safety, the slate fell upon him causing instant death.

The work of taking out props is dangerous, when done in the manner in vogue in this district, but if the proper tools were used, the work could be done with perfect safety; but as long as men will stand close to a prop and knock it out with a hammer, just so long will loss of life from this cause occur.

Oscar Allshouse, a trip runner, leaves a widow and one orphan; was killed by the dilly trip at the National mine on March 8.

This man was a trip runner on the rope haulage road. His duty was to connect and disconnect the wire rope to and from the full and empty trips, and accompany the trips into and from the mine.

In this instance he was riding on the front end of the full trip coming out of the mine, and when nearing the pit mouth he was (as was the custom) about to disconnect the rope from the cars, when by some means he fell in front of them and one of them was pulled over him causing almost instant death.

The engineer who was running the stationary engine saw the man's light fall and surmising that something was wrong he stopped the trip as quickly as possible and went forward to investigate, and found the deceased under the cars, life being extinct.

He was not the regular trip runner, but was acting temporarily while the regular man was off work.

John Gillingham, a miner, 26 years of age and single, was killed by a fall of slate in the Hastings slope mine on March 20.

The slate that fell on him measured 6x4 feet x 2 inches, which does not prove regular, but is sometimes found above the first layer of roof coal, and where observed is generally very treacherous.

It would appear that at the time of the accident, the man was wedging down a piece of the lower slate, and upon hearing the upper layer of slate give way, he thought the sound came from that portion which he was trying to take down, and in stepping back, as he supposed, to a place of safety, he moved directly beneath the slate from which the breaking sound came, and which he thought was coming from another location.

The man was a careful practical miner and the occurrence must be classed among the list of purely accidental deaths.

Edward Gadzinskie, a laborer leaves a widow and three orphans, was killed at the tipple of the Laurel Hill mine No. 4 by being run over by a railroad car on March 25.

The man was moving a car from under the screens, and there being a slight down grade on the track, it is presumed that he got on the car to regulate its speed with the brake, and that he slipped and fell under the wheels of the car, which partly passed over him.

No one saw the accident, but when found the body was under the car as above, life being extinct.

Cyrus Alberts, a mule driver, age 56 years, was killed by coal cars at the Bridgeville mine on March 29.

This old man had for many years been employed driving a mule team on the main tunnel.

At the time of the accident, he had been walking alongside his trip for some distance on a slight up grade in the road, and when he arrived at the end of the grade, he made an attempt to get on the front car (as was his custom) to ride out to the tipple, when he slipped and fell in front of the car which was pulled on top of him causing his death.

The mine foreman was riding out on the same trip and saw the old man fall and made an attempt to save him, but could not reach him or stop the trip until the cars were pulled on his body.

This man was too far advanced in years to drive mules with safety.

Enoch Hayland, a miner, aged 21 years and single, was killed by fall of slate in his room at the Mansfield No. 2 mine on April 24.

The piece of slate which fell on him would weigh about 1,600 pounds and was partly disconnected from the surrounding strata by a free slip which could not be detected with the eye, but if the slate had been sounded with some heavy instrument its insecurity might probably have been detected.

It was evident that the man considered his place safe, from the fact that he had drilled a hole in the slate for the purpose of blasting it down to make room to pass the cars nearer to the face of his room, which he would not have done had he supposed the slate to be loose.

The fire boss examined the place in the morning about three hours before the accident, and he reported it safe at that time, but upon a subsequent examination I observed that the man had mined too far in advance of his props, and that if he had used ordinary precaution, in keeping the props set up nearer the face of the coal, the accident might have been averted.

John Smith, a Hungarian miner, aged 40 years, was killed in the Morgan mine by a gas explosion on May 11.

At the time of the accident, the miners were on a strike, the mine had been idle and the fan had been stopped for about two weeks,

consequently quite a large body of gas had accumulated at the face of one set of butt entries.

It is supposed that the man had gone into the mine early in the morning to take out his tools, but he did not consult any of the mine officials as to whether it was safe, or ask their permission to enter the mine.

His working place was located in one of the entries where the gas had accumulated and before arriving at his room he came in contact with the gas and ignited it with his open light.

His death must have been instantaneous for the evidence clearly indicated that the explosion was very violent at the point where the body was found.

There were danger signals placed at the mine entrance and at the entrance to each set of entries warning persons not to enter, and this man passed two such danger signals on his way to the point where he ignited the gas.

He was "batching" along with a number of other Hungarians who were huddled together in a shanty, but none of them made the fact known that he had gone into the mine, and had not returned, until the following evening, when one of them told the mine foreman that Smith had gone away the day before and had not returned, and they thought he must have gone into the mine.

Upon this notification the mine foreman and fire boss entered the mine to make an investigation, and having passed a short distance from the pit entrance, they at once observed that an explosion had occurred and they proceeded forward to No. 23 room in No. 4 butt entry where they found the body (see sketch). Both entries must have been full of gas from this point to the face where the gas was being generated.

It is very fortunate that none of the other Hungarians accompanied the man into the mine, or they also would have been killed.

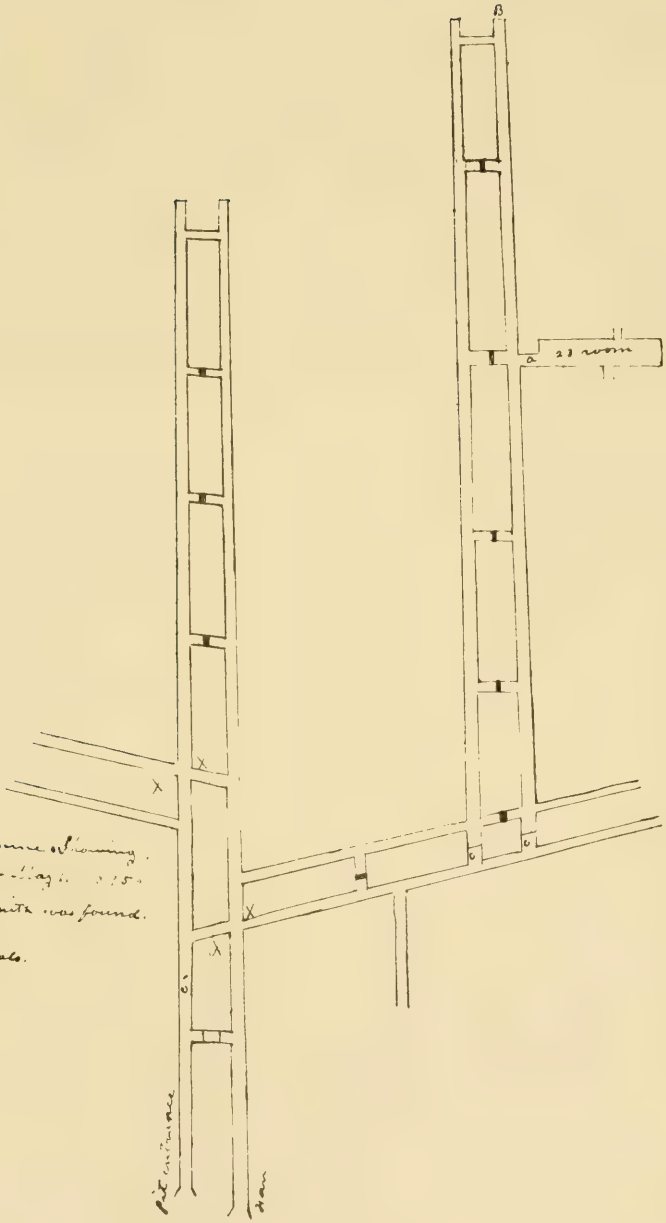
The man was not a practical miner and in his ignorance he went into the mine without asking permission of the mine officials having no conception whatever of the danger, or the consequences likely to result from his rash act.

John Horn, a miner, 22 years of age and single, was killed in the Bridgeville mine on May 16 by falling slate.

There were two men working together in a room. They had gone back into the gob to take out a prop to set under the slate at the working face.

After they had knocked the prop (which was about sixteen feet back from the face of the room) loose, a piece of slate fell upon it, and while removing this slate another piece fell upon both of them fatally injuring Horn, while the other man escaped with slight injury.

Seventh Bituminous district



Section of the Morgan mine Wyoming.
Location of gas explosion on May 5. 1915.

A = 23 room where body of Smith was found.
B = location of gas feeder.
C = location of danger signals.
I = doors.
■ = stoppings.
XX = air bridges

It would appear that the men were taking out the prop in a very careless manner, giving no attention whatever to the dangerous condition of the roof, and even after the first piece of slate fell, they took no heed to the fact that the upper roof was breaking and likely to fall at any moment, but went directly beneath it to liberate the prop.

The danger must have been so obvious that less than ordinary intelligence would have suggested to the men the necessity of retreating to a place of safety and not to risk their lives for the sake of a prop.

Guiseppe Realis, an Italian miner, age 24 years, was killed by a large mass of slate falling upon him in his working place at the Beadling mine on June 6.

He was loading coal after the mining machine, and was working (in a very careless manner) under a large quantity of loose slate.

Two free slips passed through the slate from opposite directions, thereby destroying the natural support of the surrounding strata.

The danger could easily have been seen and the slate taken down or made secure, if ordinary care had been exercised, but it appeared that he had made no effort to protect himself but was giving his whole attention to the taking down and loading of the coal, ignorant of the fact that his life was in jeopardy, and the danger was increasing every moment as he continued to advance further under the loose slate without making any effort to protect himself.

I could not get much information about the man but it is evident he was a stranger to mine work and lost his life because of his incompetency to detect and guard against the danger to which he was exposed.

Paul Cukatti, a miner, age 21 years, was killed by fall of slate in the Essen No. 1 mine on June 15.

The deceased, with another man, was driving an entry and they had fired a blast in the coal which had both dislodged the coal and broken into the overlaying slate making it unsafe to work under.

Immediately after the blast had been fired and while the place was full of powder smoke, the deceased went back to the face to recommence work, but he failed to inspect the roof to ascertain whether it was safe or not, and this neglect cost him his life, for the moment he stepped under the slate and before he had time to begin work, the broken slate fell upon him causing instant death.

He was a practical miner, and usually very careful, but in this instance he made a fatal mistake.

Paul Yuro, a Hungarian miner, 22 years of age and single, was killed on August 3, at the Ridgway Bishop mine.

He was mining coal in a room. He had just cut through a

clay vein and had taken the coal out to a distance of four feet inside of said clay vein, at which point a free slip intersected and ran parallel with the natural cleavage of the clay vein, so that in the absence of props, the overslate was unsupported, and it fell without warning, striking Yuro on the head and upper part of the body, causing instant death.

From a subsequent examination of the room it appeared that a portion of the slate had fallen sometime previous to the accident, exposing to view the natural slip passing through it, so that had he taken reasonable precaution he might have detected the danger and guarded against it.

I could not ascertain how long he had been mining coal, but he was either incompetent to recognize the danger, or was wanting in forethought in matters pertaining to his own safety, probably the former.

James Messur, a Polish miner, 38 years of age, leaves a widow and two orphans, was fatally injured by falling slate in his room at the Federal mine on August 27, and died in the hospital on the following day.

The loose slate in this case was also disconnected from the other strata by two natural cleavages which passed through it in different directions, but they were not concealed from view and the danger could have readily been seen and the loose slate either taken down or made secure before the accident, but it was also evident that this poor fellow had not sufficient mining practice to enable him to discern whether his working place was safe or not, and I may safely say that his death was the result of his ignorance of the surrounding danger and the means that should have been made use of to secure protection.

John Rich, a miner, 43 years of age, leaves a widow and four orphans, was killed by a piece of slate falling upon him at the First Pool mine on September 23.

The deceased was working in a room at loading coal after the mining machine.

The piece of slate which fell on him was circular in shape, about three feet in diameter and one foot thick and it was completely surrounded by a slip which could not be seen, and no doubt was unexpected by the miner, and the danger could only have been detected by sounding it with a sledge or other heavy instrument.

Had this method been adopted, the accident might possibly have been averted. The room in general was well timbered and showed evidence of skill on the part of the miner.

Steve Bagalett, a miner, 62 years of age, was fatally injured by an explosion of gas in the Brier Hill mine on October 17, and died from the effects of his injuries on the 29.

There were two other men burned at the same time but their injuries were not fatal.

The gas which caused this explosion escaped into the mine from an oil well that had been drilled down through one of the rooms where pillars were being mined out some two years ago.

When the well was drilled down into the room the remaining pillars in the immediate vicinity were left standing in order to support the strata and protect the well, but by reason of part of the coal having been taken out before that time, the part remaining was not of sufficient strength to carry the weight of the overlying strata, the result being that of late a creep had begun to overrun that part of the mine, and the continued subsidence of the strata finally broke the casing of the well allowing the gas to escape into the mine.

The deceased and the two men who were injured, were working about three hundred feet from the well and the escaping gas came in contact with their open lights and was ignited with the above results.

It was very fortunate in one respect that those men were working in this particular place at the time, and that the gas was discovered before it had extended over a large area of the mine, for had the gas not been discovered, at this time, and place, it would in a very short time (as was afterwards proved) have extended to the main hauling road and would have been ignited by the drivers, in which case, the volume of gas would have been sufficient, and probably would have caused the death of every person in the mine (about one hundred and sixty in number) but fortunately a sad but timely warning was received, and all the men were sent out of the mine as quickly as possible.

I was in the mine a few hours after the accident, and at that time the gas had extended over a large area of the mine and could be detected in one of the main air currents where 20,000 cubic feet of air was passing per minute, and this in the near vicinity of the ventilating furnace.

I suggested that the furnace fire be at once extinguished so as to prevent the ignition of the gas at the upcast shaft and this suggestion was acted upon as quickly as possible.

Upon an investigation at the oil well on the surface it was found that the pump rods in the well were broken down near to the coal bed, and that this occurred about the time the gas escaped into the mine, and in pulling up the inside tubing, it was also found to be broken at the same point, and the outside casings were likewise broken and they leaned considerably from the perpendicular.

This well with several others were connected with a pipe line on the surface so as to collect the gas from the different wells to use as fuel for the pumping boiler.

After the well in question was disconnected from the other wells and thrown open at the top, the gas in the mine at once began to subside and was removed from all parts of the workings in about three days afterward, and since that time no gas has escaped from the well into the mine.

Now whether the gas came direct from the oil and gas rock, up through the well in question into the mine, or whether it was forced down through the casings from the other wells through the connecting pipe line above mentioned, is not known, but in view of the fact that when this particular well was disconnected and thrown open (at the surface) the gas in the mine began to subside, it is reasonable to assume that the gas came from the other connected wells; but on the other hand it may be stated that when the pumping apparatus was broken and the well could no longer be pumped, it would at once begin to fill up with oil and water, the weight of which would have a tendency to prevent escape of the gas, and force it through the lower strata to the other wells in the near vicinity where its escape would be unrestrained.

However, all this is only conjecture, for there is no absolute certainty about it, other than the fact that the explosion occurred by reason of the gas escaping from the broken well into the mine, and there came in contact with the miners' open lights.

While I deeply deplore the loss of life and personal injury resulting from this explosion, yet I repeat the statement that it was extremely fortunate that a terrible catastrophe was averted. I may further state that I am not, by any means fully persuaded that this will be the last accident from the same cause, for when the fact is taken into consideration that a multitude of oil and gas wells are drilled through the mines in this neighborhood, I realize that in spite of all the care and vigilance that can be exercised the danger is imminent and may at any time result in a fearful calamity.

I append a sketch of the section of the mine where the explosion occurred.

John Cherneys, a Polish miner, 28 years of age, was killed in the Enterprise mine on October 29, by being run over by the dilly trip.

The deceased in company with another man, was going home from work, and was traveling out by way of the rope haulage road, and when near a junction in the road, they heard the trip (which was run into the mine by gravity) coming towards them, but supposing that it was going into the other section of the mine they continued on their way and did not see their mistake until the cars were almost upon them.

The other man succeeded in reaching a refuge hole and thereby saved himself. There was plenty of room on the side of the road-

way, but it would appear that Cherneys became excited and lost his presence of mind and was caught by the trip and dragged for some distance with such violence as to cause his death.

There was no necessity for the men walking on the rope haulage road to leave the mine as there was an independent traveling road in good condition leading direct from the section of the mine where they were working to the traveling shaft.

George Noveroski, a Polish miner, was killed by fall of slate in his room at the Nixon mine, on November 20.

There were two men working together mining coal, and they had just fired a blast which dislodged the coal, leaving a large mass of slate unsupported. After returning to their room the deceased was anxious to know what execution the shot had done, and he walked directly under the loose slate without taking time to ascertain whether it was safe or not, the result being that a large piece of slate fell, striking him on the head, causing instant death.

If the men had been at all careful, and had inspected the place after the blast as they should have done, this accident could have been averted.

31--10--95

TABLE NO. 1.—*Showing location, etc., of collieries in the Seventh Bituminous Mine District.*

Name of Colliery.	Name of Operator.	Location—County.	Name of Superintendent.	Post Office Address.
Allison.	Cook & Sons.	Washington.	R. M. Cook.	McGovern.
Bower Hill.	Alex. Dempster.	Allegheny.	W. W. Dempster.	Pittsburgh.
Beach Cliff.	Imperial Coal Company.	Allegheny.	L. S. Young.	Imperial.
Bellwood.	Munhall Brothers.	Allegheny.	John Munhall.	Munhall.
Becks Run.	Hays Coal Company.	Allegheny.	Julius Esmiol.	Redman Mills.
Beadling.	Beadling Brothers.	Allegheny.	Wm. Beadling.	Beadling.
Bridgeville.	A. J. Shulte.	Allegheny.	A. J. Shulte.	Bridgeville.
Boyd.	Boyd Coal Company.	Allegheny.	Jesse Sanford.	Walkers Mills.
Beachmount.	Beachmont Coal Company.	Allegheny.	J. C. McMichael.	Hickman.
Brakenridge.	Brakinridge Coal Company.	Allegheny.	Alfred Hicks.	Leechburg, Pa.
Boon.	Canonsburg Coal Company, Limited.	Washington.	E. T. Hitchman.	Canonsburg.
Brier Hill.	Patterson & Sauters.	Washington.	J. D. Sauters.	McDonald.
Creedmore.	Ohio and Pennsylvania Coal Company.	Washington.	Ruben Street.	Cecil.
Champion.	Robbins Coal Mining Company.	Allegheny.	Geo. W. Schludenberg.	Penn Building, Pittsburgh.
Cherry.	Morris McCue & Co.,	Allegheny.	James Boyle.	3d Ave. & Try St., P'tb'g.
Castle Shannon.	Pittsburgh and Castle Shannon Coal Co.	Allegheny.	E. J. Reamer.	South Side, Pittsburgh.
Colhoon.	W. S. B. Hays.	Allegheny.	J. S. Hutchison.	Monongahela, Pa.
Enterprise.	Hartley and Marshell.	Allegheny.	Becher Hartley.	Banksville.
Essen No. 1, 2 and 3.	Essen Coal Company.	Allegheny.	Thomas Renshaw and Wm. Baldwin.	First, Essen; second, Federal.
Enterprise No. 2.	**Pittsburgh and Belle Vernon** Coal Co.,	Washington.	Thomas Corde.	Pittsburgh.
Federal.	Chartiers Block Coal Company.	Allegheny.	Wm. Baldwin.	Federal.
Freeport.	Freeport Coal Company.	Allegheny.	J. G. Cornell.	Freeport, Pa.
Fox.	Thomas Fox.	Allegheny.	Thomas Fox.	36th ward, Pittsburgh.
Federal Spring.	Federal Coal Company.	Allegheny.		Hickman.
First Pool.	First Pool M. Gas Coal Company.	Allegheny.	Geo. W. Schluederberg.	Penn Building, Pittsburgh.
Grant.	W. L. Scott Co.,	Allegheny.	Geo. Z. Hosack.	Carnegie.
Hickman.	Federal Coal Company.	Allegheny.		Hickman.
Hays Street Run Nos. 2 & 3.	Hays Coal Company.	Allegheny.	John Watson.	Hope Church.
Hastings slope.	Slope Mine Coal Company.	Allegheny.	W. J. Morgan.	Bridgeville.
Hite.	McFetridge Brothers.	Allegheny.	Geo. H. McFetridge.	Hite.
Idlewood.	Thomas D. Steen.	Allegheny.	W. C. Gartley.	Idlewood.
Jumbo.	Pittsburgh Consolidated Coal Company. Pittsburgh & Western Coal and Coke Co.	Washington.	Geo. W. Schluederberg.	Penn Building, Pittsburgh.
Laurel Hill Nos. 1, 2 and 4.	W. P. Rend & Co.,	Allegheny and Washington.	David Brown.	McDonald.
Lick Run.	Keeling Coal Company.	Allegheny.	Peter Keeling.	Josephine St., Pittsburgh.
Leasdale.	S. B. Gregg.	Allegheny.	S. B. Gregg.	Woodville.
Montour.	Imperial Coal Company.	Allegheny.	L. S. Young.	Imperial.
Mansfield No. 2.	Mansfield Coal and Coke Company.	Allegheny.	Daniel Boden.	Carnegie.
Mansfield and Erie.	Pittsburgh Fuel Company.	Allegheny.		Pittsburgh.
Midway.	Midway Block Coal Company.	Washington.	Geo. W. Schluederberg.	Penn Building, Pittsburgh.
Margerum.	Morgan, Moore & Baine.	Allegheny.	James F. Cook.	Imperial.
Moon Run.	Moon Run Coal Company.	Allegheny.	N. F. Sanford.	Moon Run.

Morgan,	Miller's Run Coal Company, Limited,	Allegheny,	John Petterson,	Morgan.	
National,	National Coal Company, Limited,	Allegheny,	Frank Armstrong,	Pittsburg.	
Nixon,	Alex. Black Coal Company,	Allegheny,	W. H. Linsley,	Bont.	
Natrona,	Pennsylvania Salt Manufacturing Co.,	Allegheny,	R. Hoeslen,	Natrona.	
North Western,	Pittsburg and Belle Vernon Coal Company,	Allegheny,		Pittsburgh.	
Nickel Plate,	J. D. Sauters,	Allegheny,	J. D. Sauters,	McDonald.	
Ormsby,	Keeling Coal Company,	Allegheny,	Peter Keeling,	Josephine St.,	Pittsburg.
Oak Ridge,	Oak Ridge Coal Company, Limited,	Allegheny,	Geo. W. Schluederberg,	Penn Building,	Pittsburg.
O. J. C.,	W. J. Steen,	Allegheny,	Harry Bare,	Carnegie.	
Pine Creek,	Robbins Coal and Coke Company,	Allegheny,	Geo. W. Schluederberg,	Penn Building,	Pittsburg.
Pine Ridge,	Mankedick Coal Company,	Allegheny,	F. W. Mankedick,	Oakdale Station.	
Pan Handle,	Pan Handle Coal Company,	Allegheny,	T. W. Jones,	Essen.	
Pittsburgh Fuel No. 2,	Pittsburgh Fuel Company,	Allegheny,		Pittsburgh.	
Primrose,	Pittsburgh Consolidated Coal Company,	Washington,	Geo. W. Schluederberg,	Penn Building,	Pittsburg.
Ridgway Bishop,	Ridgway Bishop Coal Company,	Washington,	W. R. Wilson,	Bishop.	
Streets Run,	Harrison Gas Coal Company,	Allegheny,	Wm. L. Nangarrow,	Hope Church.	
Summer Hill,	Frank Armstrong,	Allegheny,	Frank Armstrong,	Pittsburgh.	
Star,	Frances Mankedick,	Allegheny,		Sturgeon.	
Standard,	Standard Coal Company,	Allegheny,	James Collins,	Pan Handle.	
Venture,	Saw Mill Run Coal Company,	Allegheny,	E. N. Wildman,	West Carson St.,	Pittsburg.
Willow Grove,	Willow Grove Mining Company,	Allegheny,	Geo. W. Schluederberg,	Penn Building,	Pittsburg.
Walton,	Joseph Walton & Co.,	Allegheny,	John M. Kapp,	Carrie.	
West Tarentum,	McFetridge Brothers,	Allegheny,	Geo. H. McFetridge,	Hite.	

TABLE NO. 2.—*Gives the total number of tons of coal mined, coke manufactured and tons of coal shipped in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, etc., in the Seventh Bituminous Mining District for the year ending December 31, 1895.*

Names of Collieries.	Location.	Total production in tons of coal.	Total production in tons of coke.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam drillers.	Number horses and mules.	Number mine locomotives.	Number coke ovens.
Allison,	Washington,	74,663		74,663	168	101			40		12		
Bower Hill,	Allegheny,	49,101		49,101	*172	111		2			10		
Bellwood,	Allegheny,	51,980		51,450	64	214					14		
Beadling,	Allegheny,	109,768		109,205	239	193	2	3	340	4	16		
Bridgeville,	Allegheny,	52,952		52,952	146	103	2		30	1	6		
Boyd,	Allegheny,	62,937		62,937	192	113				2	3		
Beachmount,	Allegheny,	42,685		42,000	200	124					5		
Becks Run,	Allegheny,	32,715		31,849	43	266				3	13		
Brakenridge,	Allegheny,	49,000		**	295	54			450		2		
Boon,	Washington,	71,842		71,842	213	112		1		1	7		
Brier Hill,	Washington,	67,747		67,265	193	143	1	2		3	8		
Creedmore,*	Washington,	70,000		68,000	140	135		2		3	8		
Castle Shannon,	Allegheny,	55,300		***	300	109					6		
Champion,	Allegheny,	117,898		117,126	172	193	1	1		6	12		
Cherry,	Allegheny,	66,001		65,225	208	93		2			11		
Calhoun,	Allegheny,	8,998		***	300	12					1		
Enterprise,	Allegheny,	165,910		165,910	197	339	1			3	10	2	
Essen No. 1,	Allegheny,	87,626		87,130	131	242	2	2		3	10		
Essen No. 2,	Allegheny,	71,537		71,117	131	164		5		1	6		
Essen No. 3,	Allegheny,	94,191		92,480	138	173		4		2	10		
Enterprise No. 2,	Washington,	27,000		27,000	85	70				2	5		
Federal,	Allegheny,	37,958		37,958	99	114	1			1	6		
Fox,	Allegheny,	9,089		***	300	26				1	2		
Federal Spring,	Allegheny,	62,357		62,357	146	161					8		
First Pool,	Allegheny,	275,209		274,195	250	316	1	4	246	5	20		
Grant,	Allegheny,	46,458		46,458	148	117					14		
Hickman,	Allegheny,	36,145		36,145	129	162					3		

*Estimated. **Locomotive use. ***Local trade.

Hastings Slope,	Allegheny,	41,157	.....	40,247	212	111	1	.....	.....	2	9	.....	.....	
Hite	Allegheny,	102,723	.....	102,723	281	87	.....	.....	849	1	14	.....	.....	
Hays Street Nos. 2 and 3.	Allegheny,	44,651	.....	42,651	49	328	.....	.....	.....	2	24	.....	.....	
Idlewood,	Allegheny,	25,260	.....	25,260	145	64	.....	.....	.....	1	6	.....	.....	
Jumbo,	Washington,	123,079	.....	122,248	181	231	.....	4	.....	6	13	.....	.....	
Lick Run,	Allegheny,	7,704	.....	7,704	120	25	.....	.....	.....	.....	3	.....	.....	
Laurel Hill No. 1,	Allegheny,	159,250	5,000	136,500	175	418	.....	2	1,592	13	37	.....	30	
Laurel Hill No. 2.	Washington,	60,200	.....	55,900	152	181	.....	.....	602	10	14	.....	.....	
Laurel Hill No. 4.	Allegheny,	98,000	.....	38,000	156	236	1	2	980	9	16	.....	.....	
Leasdale,	Allegheny,	16,000	.....	16,000	146	52	.....	.....	.....	.....	2	.....	.....	
Montours,	Allegheny,	61,169	.....	59,496	171	141	.....	.....	.....	2	5	.....	.....	
Margerum,	Allegheny,	40,654	.....	40,654	105	106	.....	.....	40	.....	5	.....	.....	
Mansfield No. 2.	Allegheny,	222,630	.....	221,630	182	369	1	2	.....	2	20	.....	.....	
Mansfield and Erie.*	Allegheny,	12,600	.....	12,000	120	43	.....	.....	.....	2	4	.....	.....	
Midway,	Allegheny,	79,189	.....	75,908	218	126	.....	.....	.....	2	9	.....	.....	
Moon Run,	Allegheny,	203,864	.....	203,120	165	378	.....	2	.....	1	30	.....	.....	
Morgan,	Allegheny,	42,000	.....	42,006	109	144	1	.....	200	2	6	.....	.....	
North Western,	Allegheny,	117,076	.....	117,076	198	177	.....	.....	259	3	7	.....	.....	
National,	Allegheny,	46,896	.....	46,896	138	118	1	.....	.....	4	6	.....	.....	
Natrona,	Allegheny,	75,490	.....	.....	307	111	.....	2	580	1	20	.....	.....	
Nixon,	Allegheny,	61,213	.....	61,213	129	158	1	1	.....	.....	14	.....	.....	
Nickel Plate,	Allegheny,	69,933	.....	69,589	205	149	.....	.....	.....	3	9	.....	.....	
Ormsby,	Allegheny,	108,288	.....	107,337	204	191	.....	1	.....	6	15	1	.....	
Oak Ridge,	Allegheny,	61,128	.....	61,128	214	87	.....	.....	.....	2	7	.....	.....	
O. I. C.,	Allegheny,	41,094	.....	41,094	166	95	.....	1	.....	.....	6	.....	.....	
Pan Handle,	Allegheny,	137,521	.....	136,391	225	202	.....	1	.....	4	19	.....	.....	
Pine Creek,	Allegheny,	44,928	.....	43,034	172	78	.....	.....	.....	2	5	.....	.....	
Pine Ridge,	Allegheny,	12,800	.....	12,800	130	28	.....	.....	.....	.....	2	.....	.....	
Primrose,	Washington,	77,923	.....	77,702	169	134	.....	.....	.....	4	8	.....	.....	
Pittsburg Fuel No. 2.	Allegheny,	28,000	.....	27,000	120	50	.....	.....	.....	2	7	.....	.....	
Ridgway Bishop.	Washington,	92,379	.....	92,379	132	238	1	.....	.....	2	12	.....	.....	
Streets Run,	Allegheny,	49,787	.....	48,455	266	59	.....	.....	.....	1	3	.....	.....	
Summer Hill,	Allegheny,	129,929	.....	129,929	179	272	.....	2	.....	2	17	.....	.....	
Star,	Allegheny,	5,100	.....	5,100	200	10	.....	.....	.....	.....	1	.....	.....	
Standard,	Allegheny,	62,859	.....	61,610	142	116	.....	.....	.....	1	8	.....	.....	
Venture,	Allegheny,	100,000	.....	100,000	202	174	.....	1	.....	3	11	.....	.....	
Walton,	Allegheny,	125,148	.....	125,148	123	303	.....	.....	.....	4	18	.....	.....	
West Tarentum,	Allegheny,	9,319	.....	***	295	16	.....	.....	120	.....	1	.....	.....	
Total,		4,693,508	5,000	4,430,405	11,376	9,858	38	55	6,319	142	644	3	30	

* Estimated. *** Local trade . Home use.

TABLE No. 3.—*Showing the number of each class of employes at each colliery in the Seventh Bituminous Mine District, during the year 1895.*

Names of Collieries.	Location.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.						
		Inside foreman or mine boss.	Miners.	Miners' boys under 16 years of age.	All company men.	Drivers and runners.	Doorboys.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	Grand total—inside and outside.
Allison,	Washington,	1	81	.....	2	29	.....	93	.....	1	.....	6	1	8	101
Bower Hill,	Allegheny,	1	85	10	3	5	1	105	1	1	.....	4	.....	6	111
Bellwood,	Allegheny,	1	160	20	1	14	.....	196	2	1	2	12	1	18	214
Beadling,	Allegheny,	1	145	8	6	13	6	179	1	2	3	7	1	14	193
Bridgeville,	Allegheny,	1	85	3	1	4	2	96	.....	2	1	3	1	7	103
Boyd,	Allegheny,	1	100	.....	2	2	2	107	.....	1	1	3	1	6	113
Beachmount,	Allegheny,	1	107	.....	2	5	1	116	1	1	1	4	1	8	124
Becks Run,	Allegheny,	2	210	11	3	14	2	242	1	2	4	14	3	24	266
Brakenridge,	Allegheny,	1	45	1	1	2	.....	50	.....	.....	.....	3	1	4	54
Boon,	Washington,	1	95	2	2	5	.....	105	1	1	1	3	1	7	112
Brier Hill,	Washington,	1	105	8	6	7	1	128	1	1	2	10	1	15	143
Creedmore,*	Washington,	1	90	14	4	7	1	117	1	3	4	8	2	18	135
Castle Shannon,	Allegheny,	1	80	8	3	6	1	99	1	3	.....	6	.....	10	109
Champion,	Allegheny,	1	130	23	7	12	3	176	1	3	4	7	2	17	193
Cherry,	Allegheny,	1	70	7	2	6	.....	86	1	2	.....	4	.....	7	93
Calhoun,	Allegheny,	.....	9	.....	.....	1	.....	10	.....	.....	.....	2	.....	2	12
Enterprise,	Allegheny,	3	270	18	12	14	3	320	1	3	4	8	3	19	339
Essen No. 1,	Allegheny,	1	200	10	5	10	2	228	.....	3	3	7	1	14	242
Essen No. 2,	Allegheny,	1	135	5	3	8	3	155	1	1	2	5	.....	9	164
Essen No. 3,	Allegheny,	1	130	10	5	11	3	160	1	3	2	6	1	13	173
Enterprise No. 2,	Washington,	1	60	1	1	6	.....	69	1	1	3	4	1	10	79
Federal,	Allegheny,	1	90	5	2	5	3	106	.....	1	2	4	1	8	114
Fox,	Allegheny,	1	20	.....	2	1	.....	24	1	.....	1	.....	.....	2	26
Federal Spring,	Allegheny,	1	140	.....	3	6	4	154	.....	1	.....	5	1	7	161

First Pool	Allegheny	1	235	20	13	18	2	289	1	6	7	12	1	27	316
Grant	Allegheny	1	85	7	3	11	2	109	.....	1	.....	6	1	8	117
Hickman	Allegheny	1	140	.....	3	6	4	154	.....	1	.....	6	1	8	162
Hastings Slope	Allegheny	1	90	2	2	8	.....	103	1	1	2	3	1	8	111
Hite	Allegheny	2	70	4	7	2	2	87	1	2	1	5	1	10	97
Hays Street Run Nos. 2 and 3	Allegheny	2	260	18	3	21	2	306	1	2	3	21	3	32	338
Idlewood	Allegheny	1	50	.....	1	5	.....	57	1	1	1	2	2	7	64
Jumbo	Washington	1	157	22	6	14	2	202	1	4	5	24	1	35	237
Lick Run	Allegheny	1	12	2	2	4	.....	21	.....	1	.....	3	.....	4	25
Laurel Hill No. 1	Allegheny	2	300	26	23	15	8	374	.....	3	8	31	2	44	418
Laurel Hill No. 2	Washington	2	125	20	5	12	4	168	.....	2	6	15	.....	23	191
Laurel Hill No. 4	Allegheny	2	175	17	12	14	3	223	.....	2	5	5	1	13	236
Leasdale	Allegheny	1	45	.....	.....	2	.....	48	.....	1	.....	2	1	4	52
Montours	Allegheny	1	110	6	4	8	1	130	.....	1	2	8	.....	11	141
Margerum	Allegheny	1	90	2	2	4	1	100	.....	1	.....	4	1	6	106
Mansfield No. 2	Allegheny	1	289	19	8	14	4	335	1	8	4	10	2	25	360
Mansfield and Erie	Allegheny	1	30	5	2	4	1	43	.....	1	1	3	1	6	49
Midway	Washington	1	106	6	4	9	2	128	1	1	1	4	1	8	136
Moon Run	Allegheny	2	325	.....	6	22	2	357	1	4	2	12	2	21	378
Morgan	Allegheny	1	120	3	1	5	3	133	1	2	2	5	1	11	144
North Western	Allegheny	1	135	2	3	6	2	149	.....	2	2	3	1	8	157
National	Allegheny	1	100	.....	3	5	2	111	1	1	1	3	1	7	118
Natrona	Allegheny	2	72	4	3	21	1	103	.....	1	2	5	.....	8	111
Nixon	Allegheny	1	140	.....	2	6	.....	149	1	3	.....	4	1	9	158
Nickel Plate	Allegheny	1	108	6	10	8	3	136	1	2	2	7	1	13	149
Ormsby	Allegheny	1	132	12	8	10	2	165	1	5	4	13	3	26	191
Oak Ridge	Allegheny	1	70	.....	2	6	1	80		1	1	4	1	7	87
O. I. C.	Allegheny	1	82	.....	2	5	.....	90	1	1	.....	3	.....	5	95
Pan Handle	Allegheny	1	170	2	2	10	2	187	.....	2	3	9	1	15	202
Pine Creek	Allegheny	1	60	3	3	4	.....	71	.....	1	1	4	1	7	78
Pine Ridge	Allegheny	1	20	2	.....	2	.....	25	.....	.....	.....	3	.....	3	28
Primrose	Washington	1	100	7	3	9	2	122	1	2	3	5	1	12	134
Pittsburg Fuel No. 2	Allegheny	1	70	5	2	4	2	84	.....	1	2	2	1	6	90
Ridgway Bishop	Washington	3	200	6	2	9	3	223	1	3	3	7	1	15	238
Streets Run	Allegheny	1	42	4	1	3	1	52	1	2	1	3	.....	7	59
Summer Hill	Allegheny	1	240	.....	3	11	2	277	1	5	2	6	1	15	272
Star	Allegheny	1	8	.....	1	.....	.....	10	.....	.....	.....	.....	.....	.....	10
Standard	Allegheny	1	100	3	2	4	.....	110	.....	1	1	4	.....	6	116
Venture	Allegheny	1	130	8	6	11	4	160	1	3	4	5	1	14	174
Walton	Allegheny	2	250	.....	16	17	.....	285	1	3	3	10	1	18	303
West Tarentum	Allegheny	1	13	.....	1	1	.....	16	.....	.....	.....	.....	.....	.....	16
Total		77	7,698	407	260	523	108	9,073	38	121	125	418	63	765	9,838

TABLE No. 4.—*List of fatal accidents that occurred in and about the mines of the Seventh Bituminous Mine District, for the year ending December 31, 1895.*

Date of accident	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location—County.	Nature and cause of Accident.
Jan. 7.	Edward Long.	Miner.	18			Champion.	Allegheny.	Instantly killed by fall of slate in his working place.
Feb. 13.	James Miller.	Miner.	65			Beadling.	Allegheny.	Killed by fall of slate in his room.
Mar. 8.	Oscar Allshouse.	Trip runner.		1	1	National.	Allegheny.	Instantly killed by falling under full cars.
20.	John Gillingham.	Miner.	26			Hastings Slope.	Allegheny.	Killed by fall of slate in his room.
25.	Edward Gadzinskie.	Laborer.	39	1	3	Laurel Hill No. 4.	Allegheny.	Killed by railroad car at the mine tipple.
29.	Cyrus Alberts.	Mule driver.	56	1		Bridgeville.	Allegheny.	Killed by falling under full coal cars.
April 24.	Enoch Hayland.	Miner.	21			Mansfield No. 2.	Allegheny.	Killed by fall of slate in his room.
May 11.	John Smith.	Miner.	40			Morgan.	Allegheny.	Killed by gas explosion.
16.	John Horn.	Miner.	22			Bridgeville.	Allegheny.	Killed by fall of slate in his working place.
June 6.	Guiseppe Realis.	Miner.	24			Beadling.	Allegheny.	Killed by fall of slate in his room.
15.	Paul Cukatti.	Miner.	21			Essen No. 1.	Allegheny.	Killed by fall of slate at face of entry where he was working.
Aug. 6.	Paul Zuro.	Miner.	22			Ridgway Bishop.	Washington.	Killed by fall of slate in his room.
27.	James Messura.	Miner.	38	1	2	Federal.	Allegheny.	Killed by fall of slate in his room.
Sept. 23.	John Rich.	Miner.	43	1	4	First Pool.	Allegheny.	Killed by fall of slate in his room.
Oct. 14.	Lorenzo Quas.	Miner.	34	1	4	Essen No. 2.	Allegheny.	Fatally injured by fall of slate; died in hospital October 18.
17.	Steave Pagalotti.	Miner.	62	1	1	Brier Hill.	Washington.	Fatally injured by gas explosion; died November 4; the gas escaped into the mine from an oil well.
29.	John Cleays.	Miner.	28			Enterprise.	Allegheny.	Killed by being run over by empty dilly trip.
Nov. 20.	George Nowroski.	Miner.	42	1	2	Nixon.	Allegheny.	Killed by fall of slate in his room.

Table No. 5.—*List of non fatal accidents which occurred in and about the mines of the Seventh Bituminous Mine District, for the year ending December 31, 1895.*

Date of accident.	Name of Person.	Occupation.	Age.	Married.	Number of children.	Name of Colliery.	Location—County.	Nature and cause of Accident.
Jan. 7,	Francis Gorden,	Mule driver,	26	No	....	Champion,	Allegheny,	Head injured; was kicked by a mule.
17,	Antony Prokart,	Miner,	18	No	....	Bon,	Washington,	Leg broken by fall of slate.
21,	Joseph Doman	Miner,	25	No	....	Laurel Hill No. 1,	Allegheny,	Run over by dilly trip and seriously injured, necessitating amputation of one arm.
Feb. 13,	William Conley,	Miner,	18	No	....	Cherry,	Allegheny,	Leg broken by fall of roof coal.
16,	William Smeader,	Miner,	....	Yes	....	Ormsby,	Allegheny,	Arm injured by fall of coal.
28,	Thomas Mulligan,	Mule driver,	24	Yes	....	Laurel Hill No. 1,	Allegheny,	Leg broken by moving cars.
Mar. 28,	Frank Innamy,	Mule driver,	25	No	....	O. I. C.,	Allegheny,	Injured by moving coal cars.
April 18,	Frank Neicher,	....	20	No	....	First Pool,	Allegheny,	Leg broken by falling under coal cars.
June 27,	Peter Wagoner,	Miner,	47	Yes	....	Mansfield No. 2,	Allegheny,	Arm injured by coal cars.
July 15,	Andy Woodziensky,	Miner,	33	No	....	Mansfield No. 2,	Allegheny,	Leg injured by fall of slate.
17,	James Durkin,	Miner,	60	Yes	....	Champion,	Allegheny,	Foot injured by fall of coal.
19,	D. C. Forester,	Laborer,	22	No	....	Jumbo,	Washington,	Leg broken by falling under mine cars (outside of mine).
20,	Louis Domino,	Miner,	....	....	....	Moon Run,	Allegheny,	Leg broken by cars.
23,	Michael Horan, &	Miner,	50	Yes	....	Summer Hill,	Allegheny,	Slightly hurt by fall of slate.
29,	Peter Brown,	Miner,	30	Yes	....	Laurel Hill No. 1,	Allegheny,	Leg broken by fall of slate.
31,	Joseph Creston,	Miner boy,	15	....	....	First Pool,	Allegheny,	Leg broken by fall of coal.
Aug. 3,	Vergie Amendio,	Miner,	32	No	....	First Pool,	Allegheny,	Leg broken by fall of slate.
9,	John Wendell,	Miner,	....	....	....	Essen No. 1,	Allegheny,	Collar bone broken and otherwise injured by fall of coal.
20,	Frank Paylick,	Mule driver,	22	No	....	Bower Hill,	Allegheny,	Foot slightly injured by moving coal cars.
29,	Mike Rooney,	Miner,	40	No	....	Jumbo,	Washington,	Leg broken by fall of slate.
31,	Earnest Betallouloux,	Miner,	22	No	....	Essen No. 1,	Allegheny,	Both hands injured by fall of roof coal.
31,	Peter Seltner,	Mule driver,	21	No	....	Bower Hill	Allegheny,	Collar bone and two ribs broken; was crushed between car and side of entry.
Sept. 2,	August Mekus,	Mule driver,	27	No	....	Essen No. 3,	Allegheny,	Knee dislocated by moving coal cars.
3,	John Aitken,	Miner,	17	No	....	Venture,	Allegheny,	Leg broken by fall of slate.
3,	Joseph Humble,	Door boy,	....	....	....	Panhandle,	Allegheny,	Leg broken by trying to jump on the trip while in motion.

TABLE NO. 5.—*Continued.*

Date of accident	Name of Person.	Occupation.	Age.	Married.	Number of children.	Name of Colliery.	Location—County.	Nature and cause of Accident.
Sept. 9	Patrick Murphy	Mule driver.	25	Yes		Creedmore.	Washington.	Injured about hips, between car and side of entry; car left the track.
10	John. Flarey	Miner	45	No		Essen No. 3.	Allegheny.	Leg broken by fall of slate.
12	Louis Waggoner	Miner.	30	Yes		Moon Run	Allegheny.	Foot severely injured by coal cars; was riding on full trip.
17.	Elias Shayes	Miner boy	15			Champion.	Allegheny.	Arm broken by fall of slate.
19.	Thomas Carroll	Mule driver.	22	No		Champion.	Allegheny.	Foot slightly injured by moving cars.
21	Robert King.	Miner	38	Yes		Champion	Allegheny.	Back slightly hurt by fall of slate.
Oct. 2	Constine Recknew	Miner boy.	13			Creedmore.	Washington.	Leg broken by fall of coal; (working in a room with his father).
4.	Frank Jacobs	Miner	40			Summer Hill.	Allegheny.	Hip dislocated by falling slate.
8.	Eugene Cantral	Miner boy	13			Champion.	Allegheny.	Both legs broken by fall of slate; (working with his father).
9	Simon Detry	Miner	34	Yes	2	Laurel Hill No. 4.	Allegheny.	Leg broken by fall of slate.
11.		Miner				Essen. No. 2.	Allegheny.	Slightly injured by fall of slate.
14.	Mania Giovanni	Miner	34	No		Champion.	Allegheny.	Leg broken by fall of coal.
17.	John. Thomas	Miner	52	Yes		Brier Hill.	Washington.	Severely burned by an explosion of gas; the gas escaped from an oil well into the mine.
17.	Charles Richards	Miner.	18	No		Brier Hill.	Washington.	
19.	Wm. Knight.	Miner	38			Beadling.	Allegheny.	Burned by a gas explosion (not seriously.)
19.	Wm. Bennett	Miner boy	15			Beadling	Allegheny.	
22.	Carl Churale.	Miner	30	No		First Pool.	Allegheny.	Back injured by fall of slate.
26.	Mike Smith.	Miner				Essen No. 1	Allegheny.	Leg broken and otherwise injured by fall of slate.
Nov. 2.	S. Stoops.	Miner	25	Yes	2	Natrona.	Allegheny.	Foot injured by fall of coal.
6.	H. Huselton	Miner	35	Yes	3	Natrona.	Allegheny.	Leg broken by fall of slate.
13.	Philip Riley	Miner	66	Yes		Cherry.	Allegheny.	Leg cut off by being run over with coal car; he died in hospital about nine days afterward, as reported, from causes not directly connected with his injuries.
	[illegible] Joseph Venable	Trapper	18	No		Essen No. 2.	Allegheny.	Leg broken by coal cars.

13	Carl Ischam,	Mule driver,	32	Yes	2	Essen No. 2,	Allegheny,	Body injured by falling under a moving coal car.
14,	Stan Rotti,	Miner,	31	No		Essen No. 2,	Allegheny	Head injured by fall of roof coal.
14,	Michael Uskouski,	Miner,	32	No		Essen No. 2,	Allegheny	Back injured by fall of roof coal.
16,	George Gamesky,	Miner,		No		Bowling,	Allegheny,	Arm broken by fall of slate.
25,	Joseph Musher,	Miner,	25	No		Essen No. 2,	Allegheny	Leg injured by fall of slate.
2,	John Hosman,	Miner boy,	14			Jumbo,	Washington,	Leg and head injured by coal cars while riding on full trip.
11,	James Clark,	Fire boss,	36	Yes	5	Jumbo	Washington	Severely burned by an explosion of gas.
12,	Reuben Peak,	Miner,	59	Yes		Nine 0	Allegheny,	Slightly injured by fall of slate.

EIGHTH BITUMINOUS DISTRICT.

(CLEARFIELD, CENTRE AND JEFFERSON COUNTIES.)

Philipsburg, Centre county, Pa., February 21, 1896.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor of herewith presenting to you my first annual report, as Inspector of Mines for the Eighth Bituminous District for the year ending December 31, 1895. The report contains a general description of each mine, and the improvements made during the year, also mention of what improvement is considered necessary for the life, health, safety and welfare of persons employed therein. The improvements that have been made are creditable to the operators, when they are for the personal safety of the men employed in and about the mines. These improvements consist of five fans, three of which replace furnaces, one as an addition to the ventilation where exhaust steam was previously used, and one 12 foot Stine fan to replace a 12 foot Brazil fan, and which gives double the volume of air. Two new furnaces have been built, three new traveling ways opened, and one new hoisting cage put in, with latest improved safety devices; replacing an old one which had none. Three complete electric haulage plants have been installed, representing a total of 600 horse power electric generators and steam boilers. Two new hoisting shafts have been sunk, with well equipped hoisting cages to hoist coal for steam plant. One shaft to receive pumps and to convey steam to pumps, the other to convey compressed air to Harrison mining machines. Also a complete plant of boilers and compressors to run the pumps and 20 Harrison mining machines; 6 being at present in operation. The report also contains statements of accidents that have occurred in and about the mines, both fatal and non-fatal, together with their causes, and suggestions for future safety of employes; number of widows and orphans from such casualties; number of tons of coal of 2,000 pounds mined and number of tons produced per fatal and non-fatal accident, together with number of persons employed in and about the mines. There have been eleven new mines opened, seven abandoned, and five were not in operation; however, 89 mines have come under the provisions of the law during some part of the year. At this time eighty-one mines

are under inspection which had in general been running very irregularly during the summer months, but throughout the year have exceeded the total tonnage produced for the year 1894, by 1,255,853 net tons.

I remain, yours respectfully,

JOSEPH KNAPPER,
Inspector.

TABLE "A."

Fatal Accidents with Causes and Percentage of Each, Number of Wives Made Widows and Children Orphans.

Causes.	Widows	Orphans.	Total fatal accidents.	Per cent. of each.
Flying coal,			1	7.693
Falling coal,			2	15.396
Falls of slate and rock roof,			7	53.864
Struck by "T" iron rail on moving mine cars,			1	7.693
Falls of bone coal,			1	7.693
Caught by mine cars,			1	7.693
Total,	8	21	13	100.032

Non-fatal Accidents and Causes of Each.

Causes.	Non-fatal accidents.	Per cent. of each kind of accidents
Ignition of powder by lamp,	1	2.943
Falls of bone coal,	5	14.705
Falls of roof, slate and rock,	11	32.352
Falls of coal,	8	23.528
Struck by haulage rope,	1	2.943
Caught by mine and railroad cars,	7	20.586
Unloading barrel of oil,	1	2.943
Total,	34	100.000

In the reports of accidents, both fatal and non-fatal, there are shewn several cases of gross carelessness whereby the victims exposed themselves to falls of coal and roof when they knew that danger existed. The largest percentage of fatal and non-fatal cases are shown to be from falls of roof which can only be reduced by men properly and systematically timbering their working places before the roof becomes unsafe, and not under any conditions to work or stand under said loose strata after knowing it to be in a dangerous

condition, except for the purpose of securing it by timbering, or by removing it at once. Several cases show that the injured or deceased had used good judgment in undercutting coal, yet after preparing the coal to the point of falling, they exposed themselves in front of or under it, which act is suicidal and has resulted in one fatal and several non-fatal accidents. The parties found doing such careless work before such accidents occur, should be severely punished.

Report of Cottage State Hospital for the Year.

Miners and members of miners families admitted, ...	80
Persons of other occupations, ...	35
Total number of patients admitted, ...	115
Number of fatal cases, ...	8
Number of patients discharged, ...	107
Fatal cases—Compound fracture of skull, ...	1
Powder burns, ...	1
Spine injured, ...	2
Crushed leg, ...	1
Causes not reported, ...	3
Total, ...	8

Superintendent Miss M. A. Fisher.

The above shows that the State Hospital is still doing good work for the unfortunates who are injured, and that a large percentage of the cases are successfully treated. The fatal cases were of very serious nature before having been admitted.

TABLE "B."

Showing quantity of coal mined, number of days worked, persons employed inside and outside of mines, including foreman, together with quantity of powder consumed, to which one-third more may be added for powder bought outside of the company's supplies; number of tons of coal shipped, also number of tons of coal mined of 2,000 pounds per each fatal and non-fatal accident, etc.

Total number of tons mined, ...	4,709,932.18
Total number of tons shipped, ...	4,608,287.36
Total number of tons of coke, ...	24,140
Total number of tons mined per fatal accident, ...	362,302.43

Total number of tons mined per non-fatal accident, ...	138,527.40
Number of persons employed inside of mines, ...	7,539
Number of persons employed outside, ...	532
Total number of persons employed, ...	8,071
Total number of days worked, ...	15,210.75
Average number of days worked, ...	165.33
Average number of tons mined of 2,000 pounds per employe, ...	583.05
Number of kegs of powder used, ...	18,537
Horses and mules employed, ...	849
Steam boilers, ...	104
Stationery engines, single and coupled, ...	62
Electric motors, ...	10
Electric generators, ...	4

Report of Mines in Clearfield County and Improvements Thereof.

Acme Mine.—Fan ventilation, slope opening, rope haulage, on "B" seam. This mine has been found in very fair condition during the year, both as regards ventilation and drainage, with an average volume of 14,700 cubic feet of air in circulation, in one continuous current. There have been improvements made during the year in the shape of two flue boilers, 22 feet long, 4 feet diameter with two return flues each 10 inches in diameter. A new pump has also been placed in the mine, size of steam cylinder 16 inches in diameter, water cylinder 10 inch, and 30 inch stroke double acting water cylinder lined with pine wood. Total length throughout 22 feet. A new discharge line of wood 1,000 feet long, also a steam line 4 inches in diameter and 2,200 feet long. Foreman, James Scurfield.

Alexander Mine.—"B" seam has not been in operation during the year owing to the low price of coal.

Atlantic No. 1 Mine.—Slope opening on "D" seam, with fan ventilation and electric haulage. This mine has been entirely remodeled and instead of rope haulage, electric haulage of 300 horse power capacity, is used. A new slope has been driven to the interior of the mine with a 3 per cent. uniform grade to the lowest point. This mine is equipped with the following machinery: one automatic center crank engine, size 16x16 inches, made by the Altoona Foundry and Machine Company. The engine is placed on a cut stone foundation; attached is a 100 Killawat electric generator, wound for 550 volts at a speed of 650 revolutions per minute. This machine is also placed on a cut stone foundation, and they have just completed a foundation for another engine and generator, same as above. These foundations are built of fire brick, 3x10 inches and 3 feet 4 inches long. The new generator is now in position for work, the engine

being nearly completed. The engine room is built of wood, with stone foundation, size 24x46 feet, and an "L" is connected with the west side of the engine room, size 16x32 feet, for a locomotive room and repair shop. New boiler house, size 22x40 feet has also been built. This room is built of wood on cut stone foundations. In it is set two 66 inch x 16 foot return tubular boilers made by Erie City Iron Works; set with full arch front entirely built of fire brick. Three mine locomotives are now in use in this mine, two of which are 1,500 pounds draw bar pull capacity at a speed of 8 miles per hour and one 2,500 pounds draw bar pull capacity at 8 miles per hour. These were built by the General Electric Company and are known by the name of "turtle back" mine locomotives. Foreman, Benjamin Badman.

Atlantic No. 2 Mine.—Drift opening on "D" seam, endless rope haulage, force fan ventilation. This mine has been kept in good condition throughout the year both as to drainage and ventilation with an average volume of 36,396 cubic feet of air in circulation, in six separate currents. The water of the mine is now pumped by compressed air instead of steam. The air is taken from compressors that were formerly used to run coal cutters. Foreman, William Pollock.

Baltic Nos. 1 and 3.—Drift openings on "D" and "E" seams, mule haulage and furnace ventilation. The D seam has a good volume of air for the men employed, being an average of 14,100 cubic feet, but during the year it has not at any time been conducted near the working face where the law intends it to be. The roadways were always found very muddy. The "E" seam being the upper one has naturally drained itself through the strata to "D" seam, and the ventilation in the early part of the year was, in some places unfit to breathe. I had to move some of the miners out of their working places because the brattices of the mine were not properly attended to, in spite of the fact that the average volume of air at the furnace was 12,400 cubic feet. At present, however, it has been considerably improved by the sinking of a shaft 5 feet in diameter and 15 feet deep, near the left side of the working face, making the inlet air of this opening reach the greater number of men. Foreman, George Hartshorn.

Bessemer Mine.—Drift opening on "D" seam, with furnace ventilation and mule haulage. This mine commenced operations only at the latter part of the year with but a few men and did not come under inspection.

Champion Mine.—Drift opening on "D" seam with mule haulage and furnace ventilation. This mine commenced operations for the first time in the latter part of the year, and has been allowed to take care of itself, and therefore is in poor condition, both as to timbering and drainage. On my visit, the ventilation was natural

with a volume of 10,080 cubic feet of air in good circulation. Other defects will, of course, require time to remedy. Foreman, Daniel D. Jones.

Coaldale No. 3 Mine.—Slope opening on "D" seam with single rope haulage and furnace ventilation. This mine has been gradually improved until at present the ventilation and drainage is in very fair condition. An average volume of 24,483 cubic feet of air was found in circulation in two currents. A boiler has been taken out of the mine and placed at a shaft on the surface to generate steam for pump to drain part of the workings. It was a good plan to have it removed. Foreman, David Phillips.

Coaldale No. 5 Mine.—Drift opening, having mule haulage and furnace ventilation. The rope haulage was abandoned during the year, owing to the mine having been worked on main heading pillars and rapidly withdrawing. The ventilation and drainage have been found good, with a volume of 3,400 cubic feet of air in circulation in one current. Foreman, Thos. W. Jones.

Colorado No. 1 Mine.—With a drift opening on "D" seam and furnace ventilation. This mine was in bad condition during the early part of the year, both in drainage and ventilation, but the present foreman has made a general overhauling of brattices and ditches, which leaves the mine at this time in very fair condition. The property changed owners about the first part of the year. Mule haulage is still in use. I found an average of 13,000 cubic feet of air in circulation which was in two currents. Foreman, James B. Dunsmore.

Colorado No. 3 Mine. Drift opening on "B" seam with mule haulage and furnace ventilation. Although this mine has been worked very little during the year, the ventilation has been found at all times in good condition, as also was the drainage. Some of the miners undercut the coal on the bottom of seam, while others mine it next the roof. An average of 21,000 cubic feet of air was found in circulation in several currents. Foreman, Richard Morris.

Colorado No. 2 Mine.—Drift opening on "E" seam, with mule haulage and furnace ventilation. I found an average of 15,300 cubic feet of air at the furnace, but it was insufficient at the working face, which defect they promised to improve. The drainage however is good. Foreman, Thos. R. Pilkington.

Columbia No. 5 Mine. —Drift opening on "D" seam, with mule haulage and natural ventilation. Although during the winter months a fair current of air is in circulation yet in the fall and spring there is no apparent current. An average current of 1,260 cubic feet of air was found in circulation, which was insufficient for the few men they had employed, which defect, however, they promised to improve.

The drainage was in very fair condition. An excuse by the contractors was, that times had been very hard in the coal business during the year, and prices low, but these reasons should not stop them from giving the miners fresh air to breathe. Foreman, Thomas Pilkington.

Cuba Nos. 1 and 2 Mines.—Drift opening, having mule haulage and furnace ventilation on "E" seam of coal. These openings use the same tipple. The furnace was a small fire placed on a few bars, which was ordered extinguished until a second opening had been completed, which they expected to make by connecting the two drifts. Only 2,520 cubic feet of air was found in circulation which will not be improved much until said connection of drifts is completed. Drainage was good. Foreman, Grant Watkins.

Donegal Mine.—Drift opening on "B" seam, having mule haulage and natural ventilation. The latter is not yet completed, the company expect to put in a furnace in the near future. A natural current of 4,550 cubic feet of air was in circulation. Drainage was also fairly good. The mine was idle several months during the year. Foreman, Thomas Duggan.

Decatur No. 1 Mine.—Drift opening on "D" seam, having mule haulage and furnace ventilation. The ventilation was good during the year with a total volume of 26,160 cubic feet in circulation in several currents. The drainage was also in fairly good condition. A very large space of ground has been standing open on pillars, which the present foreman is robbing as rapidly as possible and with good success. Foreman, John E. Hawkins.

Decatur No. 2 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. Has not been operated during the year owing to dullness in coal trade and low selling prices.

Davidson Mine.—This is a new drift opening on "C" seam having mule haulage. They expect to put in a furnace for ventilation, and the mine has not yet come under the provisions of the law. Superintendent, Charles Whitmore.

Eureka No. 5 Mine.—Slope opening on "D" seam having single rope haulage and fan ventilation. This mine was shut down during the month of October on account of new stone foundation being built under the engine and boilers. A slight squeeze has been on this mine at the extreme working faces where a large upthrow fault was encountered, and as there is 400 feet of strata above the coal at this point, which is very heavy with sand rock, and the fault making a loose end for the strata to shove from, when they began drawing rib pillars of coal, it resulted in the squeeze mentioned, which by good care they are going to leave behind. The ventilation and drainage

has been in good condition during the year, with an average of 36,350 cubic feet of air in circulation in several currents. Foreman Thos. D. Forsythe.

Eureka No. 7 Mine.—Shaft opening on "D" seam having mule haulage inside the mine with fan ventilation. This mine has been in good condition during the year, both as regards ventilation and drainage, and great care and attention is given throughout the mine, both by the foreman and miners, to the dangerous rolley fire clay roof, to keep it secure from falling on the roadways and working places. An average of 52,950 cubic feet of air was in circulation in several currents. A good piece of work has been skillfully accomplished in approaching the old Vulcan mine line. This mine was partially abandoned and had been allowed to fill with water. It is a slope opening and having a large territory standing open on pillars, it was estimated to contain 30 acres of water, having a head of 40 feet at the extreme dip, on the line of Eureka No. 7 mine. The officials had no map of said old mines and had to gather such information as they could from an old map they obtained from a former engineer. They then stopped all the room and heading work in said section of the mine and determined to be secure in working up to within 50 feet of their own line. They then set off a pair of headings at a point supposed to be 200 feet from their own line; the headings going so as to strike property line at right angles to the headings, these being each 9 feet wide and parallel to the other. Drill holes were carried in both headings in the working face and on the side diagonally, the former, 30 feet ahead of working face and 20 feet on the sides; the headings being connected by cut holes every 20 feet. When the headings were within 50 feet of their own property line they were stopped, and bore holes in face drilled by the night shift for a distance of 40 feet farther when they struck through to the water. The foreman having long pine plugs ready with which on withdrawing drill they plugged the hole, which secured them in regards to distance between them and the water. It is probable that at some future time the water may be pumped out, and no means would be more suitable at any time to take it out than by this shaft, they having all the necessary machinery. The above work has been very carefully watched by the engineers, Shadrichs and Cameron, and the foreman, Thomas E. Estep.

Eureka No. 8 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. This mine has not been in operation during the latter part of the year, having been abandoned by the Berwind-White Coal Mining Company. On my visits, however, when in operation, I found it in good condition, both as regards drainage

and ventilation; with a volume of 3,000 cubic feet of air in circulation from natural means. This mine is now virtually abandoned. Foreman, Geo. W. Maxwell.

Eureka No. 9 Mine.—This mine has not been in operation during the year owing to thin and faulty coal. The land owners have been prospecting on the property for months and have agreed to abandon it.

Eureka No. 11 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. This mine has not been in operation during the latter part of the year, but on my visits, when in operation, the ventilation and drainage were in fairly good condition, with a volume of 12,000 cubic feet of air in circulation in two currents. A large quantity of coal still remains to be taken out, some of which is colored slightly. Berwind-White Coal Mining Company have given it up. Foreman when in operation, Edward L. Shell.

Eureka No. 12 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. This mine was in poor condition during the early part of the year, both in regards ventilation and drainage, but the latter has been considerably improved until at present it is in fairly good condition. An average volume of 21,400 cubic feet of air was measured at the furnace, but was not sufficiently well conducted to the working places. The great trouble is that the furnace is inadequate. Foreman, William Booth.

Eureka No. 13 Mine.—Drift opening on "D" seam having mule haulage and exhaust Stine fan ventilation. A few notes on the ventilation will be appropriate as to its merits compared with the furnace which was in use at the mine previous to the fan having been put in. In the report of this mine for 1893 it showed 16,000 cubic feet of air in cold weather, and notes are in my office of their having used 2,400 pounds of coal daily to produce this ventilation with a water gauge of .4 inches. Size of fan, 7 feet in diameter and the "Byron anemometer" principle in the blades. Engine 10x12 inches with side track. Boiler, vertical, 90x40 inches with 72 flues 2 inches in diameter and 23 horse power. Price complete, $575. Results, 44,400 cubic feet of air in circulation. Fan, 210 revolutions; engine, 100 revolutions; water gauge, 3 inches. The reduced water gauge from furnace with increased volume is from having another inlet added. To produce this volume of air only 600 pounds of coal were consumed in 10 hours, as reported on a test, so that there is a difference of 28,400 cubic feet of air and 1,800 pounds of coal, all in favor of fan ventilation, which now places the ventilation of this mine in good condition, in addition to the saving of running expenses to the company. Foreman, M. H. Blythe.

Eureka No. 14 Mine.—Drift opening on "D" seam having mule haulage, furnace ventilation which now has been abandoned, a Stine

exhaust fan having replaced it at a total cost to the company of $1,000 with an increase in ventilation of from 14,600, with two furnaces, to 38,000 cubic feet of air with the fan, with a great saving in fuel. The greatest gain being in giving the inside employes a fresh current of air to breathe. This mine is now in very good condition both as to ventilation and drainage. Description of improvements, fan 7 feet in diameter 34 inches in depth of blade, fan engine 10x12 inches, boiler vertical 90x40 inches, with 72 flues 2 inches in diameter. The above ventilation was obtained with 287 revolutions of fan and 0.95 inch of water gauge, the speed is high but it is easily maintained. Foreman, William Fitzgerald.

Eureka No. 15 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation, the haulage being heavy in places and it is against the loads. The roadways have been very muddy during the year and the foreman's attention has been several times called to lack of ventilation. Although the furnace is of insufficient power, yet better results could be obtained at the working places by paying closer attention to the brattices. Some of these which I have condemned in other parts of this report, are built of loose material and are not even plastered with clay or mortar on the faces, and it is a mistake to try to make the owner or operator believe that they are constructed cheaper than a brattice made of wood, when 30 feet of lumber at a cost of 30 cents, and two hours labor at a cost of 17 cents per hour, equal to total cost of 64 cents would complete it, while it would require a laborer 5 hours to make one of waste material at a cost of 85 cents, which after a few days would become loose and so lose the ventilation. I found a volume of 7,175 cubic feet of air at the furnace and only 2,100 cubic feet at the face of main heading. Foreman, Charles Rodden.

Eureka No. 16 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. There are several currents of air in circulation, making a total of 22,250 cubic feet, which has been insufficiently conducted to the working faces. Although the drainage has been in very fair condition during the year, the ventilation has been very unsatisfactory. The roof in this mine is in fairly good condition compared with some of the mines in this district, but it has been badly cared for by some of the men employed, which is bound to result in injury to some person. There was found on one of my visits, a space of 180 square feet of roof surface next to the face where the men had to work, in which there was not a single prop set. In another place 450 square feet where I immediately ordered 7 props set before leaving the place. Upon asking the men why they were so reckless, the answer was "the roof is good and safe" and yet they have had two fatal accidents in this mine from falls of roof during the year, and where there was a better system of posting than in the

places above mentioned. This carelessness in not propping the roof more securely, is the fault of the man in charge not compelling them to make it secure by a system of timbering even where the roof is apparently safe. Foreman, James W. McAlarney.

Eureka No. 17 Mine.—Drift opening on "D" seam having mule haulage and fan ventilation. This seam, where the coal is not exhausted and mined out, is only 18 inches thick and is expensive to mine. At this time the mine is abandoned by the B. W. C. M. Co. However, on my visit the ventilation was in good condition, with drainage fairly good. Foreman, James Gatehouse.

Eureka No. 19 Mine. Drift opening on "D" seam having mule haulage and fan ventilation, the furnace having been abandoned during the year. This mine is adjoining No. 17 but the coal is 36 inches in thickness and is of good quality. On my first visit of the year the ventilation was insufficient but I requested the company to put in a fan or a larger furnace, which request, I am pleased to say, they immediately complied with, and they have now a Stine fan 7 feet in diameter, with engine 10x12 inches, and boiler 90x40 inches vertical with 74 two inch flues. With a volume of 24,500 cubic feet of air well circulated, this makes the general condition of the mine good. Foreman, James W. Mulson.

Eureka No. 18 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. On my visits to this mine I found the general conditions good, both in regards ventilation and drainage, with an average volume of 37,460 cubic feet of air in circulation in 4 currents. Foreman, James Blade.

Eureka No. 20 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. A volume of 15,450 cubic feet of air was measured at the furnace and circulated through the mine in two currents, which was insufficiently conducted to the working faces, but at present, ventilation is in fairly good condition. The drainage still requires improvement, which I have no doubt will get due attention. Foreman from No. 11 mine has been transferred to this mine.

Eureka No. 22 Mine.—Drift opening on "D" seam having electric haulage and at present furnace ventilation. The coal seam is 36 inches in thickness and of good quality. Three drift openings are used by the electric motors, and a fourth one has been made for use of the men to travel to and from their work. This is the first plant installed in this district having electric haulage, and there is not a mule or horse used in the mine. The cars are small and when full carry only about one ton gross. They are put out of the rooms by the miners, for which the grades are very suitable, and the motors gather the cars on the cross headings. Below are notes taken of

different parts in connection with the plant, which consists of one tubular boiler 16 feet long, 100 horse power, with 57 flues three and one-half inches in diameter. The boiler is equipped to feed either by pump or injector, the pump being equipped to be used in case of fire on any part of property. Engine and generator room, 20x46 feet, and wing, 16x40 feet. Machinery: one Harrison engine, 12x13 inches with speed of 300 revolutions with 80 pounds of steam pressure and capable of 100 horse power; generator dynamo, multipolar type, m. p. class 4, and 90 Kilewats with speed of 700 revolutions, equals 162 ampheres and 500 volts with full load, weight of generator, 6 tons. Switch board consists of circuit breaker to be used in case of short circuit by accident, and which is automatic in its operation. A volt meter to register voltage, also cut out switch to shut off current for any purpose. Two motors were housed and two in use equaling 6½ tons and 30 horse power, and four tons and 20 horse power. Output of coal, 700 gross tons per day, which is a very good result considering the size of cars, and which means 700 cars to be handled per day with two motors. Improvements on tipple are, 2 automatic cross over tips and one straight tip; all on one single track which are used to dump the coal over and they work successfully. The ventilation has been very fair during the year. Drainage very good. The company is considering a suggestion from myself to put in a fan ventilator, which together with a new manway will make the plant complete. Foreman, Peter Cameron, Jr.

Eureka No. 23 Mine.—Drift opening with electric haulage and furnace ventilation. The same electric generator which operates this plant operates No. 26 mine, a report of which is appended to the report of that mine. All have been installed during the year. The mine is in good condition. Foreman, Geo. W. Maxwell.

Eureka No. 24 Mine.—Drift opening on "B" seam having mule haulage and furnace ventilation. Average thickness of coal 4 feet 7 inches, and a bone coal of 9 inches which comes down with the coal, making a good height for haulage way and ventilation. The present opening shows the coal pitching with a grade of 4 feet per 100 feet and on the rise is south 10 inches west and is nearly uniform. The upper part of coal seam for 2 or 3 inches is at times found cannelized and of grey ash. The buildings and other parts of plant are, ventilating furnace, 6 by 7 feet, 42 square feet of bar surface; shaft, 7 feet diameter; 50 feet deep with stacks 70 feet; escape way shaft or traveling way 40 feet deep with suitable stairs and landings. The mine tipple stands 18 feet above railroad tracks with the trestle 150 feet long and 16 feet wide. Reihle Bros. scales are used to weigh coal. An average of 21,500 cubic feet of air was in circulation, the ventilation and drainage were good. Foreman, John Allen.

Eureka No. 25 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. This mine has been in very fair condition, both as regards ventilation and drainage, with an average volume of 6,175 cubic feet of air in circulation in one current. The mine is withdrawing heading pillars. There are not many men employed. Foreman, John McGowan.

Eureka No. 26 Mine.—Slope opening on "D" seam having electric haulage on 3 per cent. grade against loaded cars, and a 10 foot Brazil fan ventilator. Size of coal vein or seam 20 to 34 inches, but it is expected to increase in thickness further under the property. The ventilation and drainage are good. Coal shipments commenced about midsummer. Equipments of this haulage and No. 23 mine are, engine 13x14 inches with sub base, made by F. H. McEwen Manufacturing Company, Ridgway, Pa., generator multipolar type, 75 K. W. wound for 500 volts with speed of 825 R. m. p. The engine and generator are set at 20 foot centers on cut stone foundation. Engine room is built of wood and is 20x46 feet with stone foundation. The locomotive room adjoining is of "L" shape, 16x32 feet, boiler room, 17x36 feet built of wood on stone foundation; in it is set a 66 inch x 16 foot return tubular boiler manufactured by McEwen Bros., Wellsville, N. Y., placed on a stone foundation lined with fire brick. Two motor mine locomotives with 1,500 pound draw-bar pull capacity at a speed of 8 miles per hour. This machine is hauling coal from 23 and 26 mines, they being one-half mile apart, and is landing coal on the same tipple. Size of drift and slope 8 feet wide in clear on mud sill, 7 feet on cap, 5 feet 10 inches vertical height, size of rails used on main road, 30 pounds per yard, and on cross headings 20 pounds per yard. Foreman John Carlin.

Excelsior No. 4 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. This mine worked only a few months early in the year, and is now abandoned.

Fairmount Mine.—Drift opening on "E" seam having mule haulage and furnace ventilation. A large incline plane is used outside to convey the coal to the railroad cars. This mine has been only in fair condition during the year in regards to ventilation and drainage. The furnace is too far from the working face of the mine and is too small for such a mine or seam, with the rapid development of such seams of coal. A remedy which was suggested to the foreman was to open another inlet on a crop line near part of the advanced work, which will put the fresh air close to the miners working faces, and reduce the friction in ventilation to one-half of its present resistance. Foreman, John R. Burns.

Gearhart Mine.—Drift opening on "E" seam having mule haulage and furnace ventilation. Operating over Lancashire mine on "D"

seam. There has been considerable anxiety for the safety of the men in working this mine owing to the strata being 30 feet and often less, between the two seams of coal, which are worked by different operators, each having a lease compelling him to take out all marketable coal or pay for it, and the land owners stubbornly refusing to leave sufficient coal on the lower seam to support the upper seam headings. After notifying the operator that I would be compelled to appeal to the court for an injunction to stop the upper seam operations, for the personal safety of the men employed in the mines, he called the two operators and myself together to discuss the best remedy for said difficulty, and after going over the ground they concluded to adopt my suggestions, namely, to allow sufficient coal to remain in the rib drawing of lower seam, and directly under the heading pillars of upper seam which was already opened, to secure them from falling in, and to make the upper seam more secure and insure an escape way from any part of the mine. A solid wall as could possibly be built was carried into all headings and airways, leaving the roadway open, and a similar space next to the coal on the gob side of headings, with roof slate taken down to make haulage ways on headings, the coal seam only being three feet four inches in thickness. The ventilation and drainage are in very fair condition with a volume of 11,200 cubic feet of air in circulation in two currents. Foreman, Richard Lobb.

Glenwood Nos. 1 and 2 Mines.—Drift openings on "D" and "E" seams having mule haulage and furnace ventilation. An incline plane is used outside to convey the coal from "E" seam to "D" seam tipple. I have always found these mines in good condition both in regards to drainage and ventilation, with an average volumes of 23,520 and 12,900 cubic feet of air in circulation in several currents. Foreman, C. J. Paul.

Grampian No. 1 Mine.—Drift opening on "E" seam having mule haulage and furnace ventilation. This mine has not been worked much during the year, but has been under the provisions of the law when in operation. A natural current of 7,500 cubic feet of air was in circulation. The drainage and ventilation being in fairly good condition. Foreman, Richard Moran.

Grampian No. 2 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. The above two mines have come under the provisions of the law alternately in accordance with their operations. This mine was found in very fair condition with a volume of 8,060 cubic feet of air in circulation. A few men only were employed at any one time.

Guion Mine.—Drift opening on "C" seam having mule haulage and furnace ventilation. This mine has not been in operation during the year.

Highland Mine.—Drift opening and mule haulage. Having only a few men employed it does not come under the provisions of the law.

Henderson No. 1 Mine.—Two drift openings on "D" seam having mule haulage and natural ventilation. The coal coming on the same tipple. These mines have just a sufficient number of men employed to come under the provisions of the law, owing to their being no territory to employ men and they are only working out stumps and pillars of coal. A volume of 3,000 and 2,000 cubic feet of air, respectively, was measured at inlets, but it was not reliable owing to the changes of atmospheric temperature and route of outside currents of air. However, its general condition was fair under the existing circumstances. Foreman, Henry Lloyd.

Henderson No. 2 Mine.—New drift opening on "D" seam having mule haulage and natural ventilation which is not yet completed. Size of drift in clear, 6 feet on sill, 5 feet under cap, and vertical height, 5 feet, with 62 sets of timber 4 feet apart and 8 inches square. Coal is being tipped on railroad cars from old Eureka No. 1 tipple, which is yet in good condition.

Herriford Mine.—Drift opening on upper "C" seam. Size of opening, 7x10 feet in the clear. This mine is not yet complete being only newly opened and only a few men employed, which does not bring it under the provisions of the law. Foreman, Daniel Campbell.

Homestead Mine.—Drift opening on upper "C" seam, has not come under the provisions of the law this year.

Imperial Mine No. 1.—Drift opening on "D" seam having mule haulage and furnace ventilation. This mine was found in poor condition in the early part of the year, but the man now in charge has worked hard to bring it up to the standard by ditching, bratticing and driving a second opening for a traveling way, which puts the mine in good condition, both as to drainage and ventilation, it having a volume of 32,500 cubic feet of air in good circulation, also with 7,200 cubic feet at face of No. 2 room, third right heading, ventilation being in two currents. Foreman, James Jennicks.

Jefferson Mine.—Drift opening on "E" seam, having mule haulage and furnace ventilation. An incline plane is in use outside to convey the coal to the railroad cars. I found this mine in good condition during the year, with an average volume of 9,990 cubic feet of air in circulation in two currents. Foreman, John C. Johnston.

Kentucky Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. This mine commenced operations on the 1st of July, after months of idle time, and it required considerable cleaning up. It, like some other mines, had to take care of itself while idle, although a large body of coal is yet untouched. On both

of my visits I found the mine idle, with furnace fire out and a natural current of 4,500 cubic feet of air in circulation in one current. Foreman, James Fleming.

Kecks Mine.—Drift opening on the Red Ash cannel coal seam having mule haulage and natural ventilation. This mine is rapidly being exhausted. However, it was found in good condition, both as regards ventilation and drainage, with a volume of 9,900 cubic feet of air in circulation in one current. Foreman, H. S. Overley.

Leader Mine.—Three drift openings on "D" and "E" seams having mule haulage and natural ventilation. All the coal coming on one tipple. A furnace could not be put in the openings advantageously, owing to the shallow cover of strata above the coal. The work is all confined to crop coal and pillar work, and falls in holes to the surface in rooms. There was no definite current of air, but the volume was sufficient to keep it healthful for men employed. I have since received a report that the number of men is reduced to nine which takes it from under the provisions of the law.

Lancashire No. 1 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. The drainage of this mine was in poor condition throughout the year, but the ventilation has been greatly improved by putting two furnaces in operation and making a new inlet for one side of the work, and near the working faces. On my last visit a volume of 12,800 and 10,400 cubic feet of air was in circulation in several currents. Foreman, Richard Ashcroft.

Lancashire No. 2 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. The drainage and ventilation of this mine have received better attention since the present foreman has been in charge, the former one having had too much work to perform in overseeing three mines. On my last visit a volume of 11,550 cubic feet of air was in circulation in one current, which places this mine in very fair condition. Foreman, Matthew Dixon.

Leland Mine.—Drift opening on "D" seam having mule haulage and exhaust fan ventilation. This mine has been kept in very fair condition as regards ventilation and drainage, with an average volume of 26,200 cubic feet of air in circulation, which travels up the main heading in one volume, and dividing into three currents on its return. I discovered on one of my visits however, while in the mine during noon hour that the fresh breeze noticed in the morning had for some reason ceased. And on following the inlet current to the drift I still found no force to it and on going to the fan house I found the fan was stopped, and the engineer gone to dinner. How long this practice had been going on I could not find out, but I notified the superintendent who was also the foreman and he immediately started the fan, and has since notified me that he discharged the engineer for neglect of duty. Foreman, D. D. Lewis.

Logan Mine.—Drift opening on "D" seam having mule haulage and natural ventilation. A furnace is in this mine but its usefulness is impaired by their not leaving solid coal along the main airways. The system of mining has been to take coal out at any point near the furnace, which has only a shallow cover of strata over the coal, which has resulted in making a number of holes to the surface. A volume of 4,500 cubic feet of air was in circulation but it had no definite route. Although the mine was free from any noxious gases yet the force required to be maintained to meet all emergencies and to immediately remove foul atmospheres when generated, either by blasting or otherwise, was not available. Foreman, Frank O'Rourke.

Loraine Mine.—Three drift openings on "D" and "E" seams having mule haulage and natural ventilation on "D" seam openings, and furnace ventilation on "E" seam openings. At the first two "D" seam drifts, ventilation was in poor condition, while the "E" seam opening was in fair condition. No measurement of air was obtained except at the furnace and drift inlet on "E" seam. This property is about to be transferred to the Berwind-White Coal Mining Company, and will then get better attention as regards ventilation. Foreman, George Gould.

Lenore Mine.—Drift opening on "E" seam having furnace ventilation and mule haulage. Furnace is of insufficient power to keep this 34 inch vein in good condition. A volume of 9,200 cubic feet of air was in fairly good circulation in one current. Foreman, Jonathan Hutchinson.

Lane Mine.—Two drift openings on "D" and "E" seams having mule haulage, and on "D" seam furnace ventilation, with natural ventilation on "E" seam. These mines are comparatively new, yet the ventilation has been insufficient on each visit during the year at the working faces and barely sufficient at the furnace. Some changes are needed so that the ventilation will pass nearer the furnace fire, and cause a better circulation of air. Drainage was fairly good. Foreman, Samuel Sykes.

Meadow Brook Mine.—Drift opening on "B" seam having mule haulage and furnace ventilation. Considerable improvement has been made in the ventilation of this mine by bratticing, etc. A second opening has also been made for the men to travel on, to and from their work. A volume of 10,400 cubic feet of air in one current was in circulation, and 4,000 cubic feet in circulation at face of second right heading. This mine is now in fairly good condition as regards drainage and ventilation. Foreman, Joseph Higham.

Mount Vernon No. 4 Mine.—Slope and shaft opening on "B" seam having single rope haulage on slope and forced fan ventilation. Although this is its first year in operation, the operators have practically put in the main part of the plant during the year. Improvements

are, one pair of hoisting engines, 12x15 inch cylinders, 4 foot diameter drum, with a width for 36 coils of ¾ inch rope, and geared 5 to 1. Slope, 480 feet long. Boilers, two tubulars, 16x4 feet, with 38 flues 3 inches in diameter. One reversible Stine fan, 7 feet in diameter. Two No. 9 Cameron pumps and one No. 9 Knowles pump are in use in the mine, which gives off a large volume of water. An escape way for miners and space for steam pipes and inlet air current have been made, being a shaft 54 feet in area on each side of partition and 91 feet deep with suitable stairs for traveling thereon. A volume of 15,500 cubic feet of air has been in circulation since completion of fan, which puts the mine in good condition. Foreman, John May.

Mount Vernon No. 5 Mine.—Drift opening on "D" seam having rope haulage and fan ventilation. This property has changed owners on the coal lease during the year, and is now being mined at Atlantic No. 1 mine of the Berwind-White Coal Mining Company. The Mount Vernon drift having been abandoned.

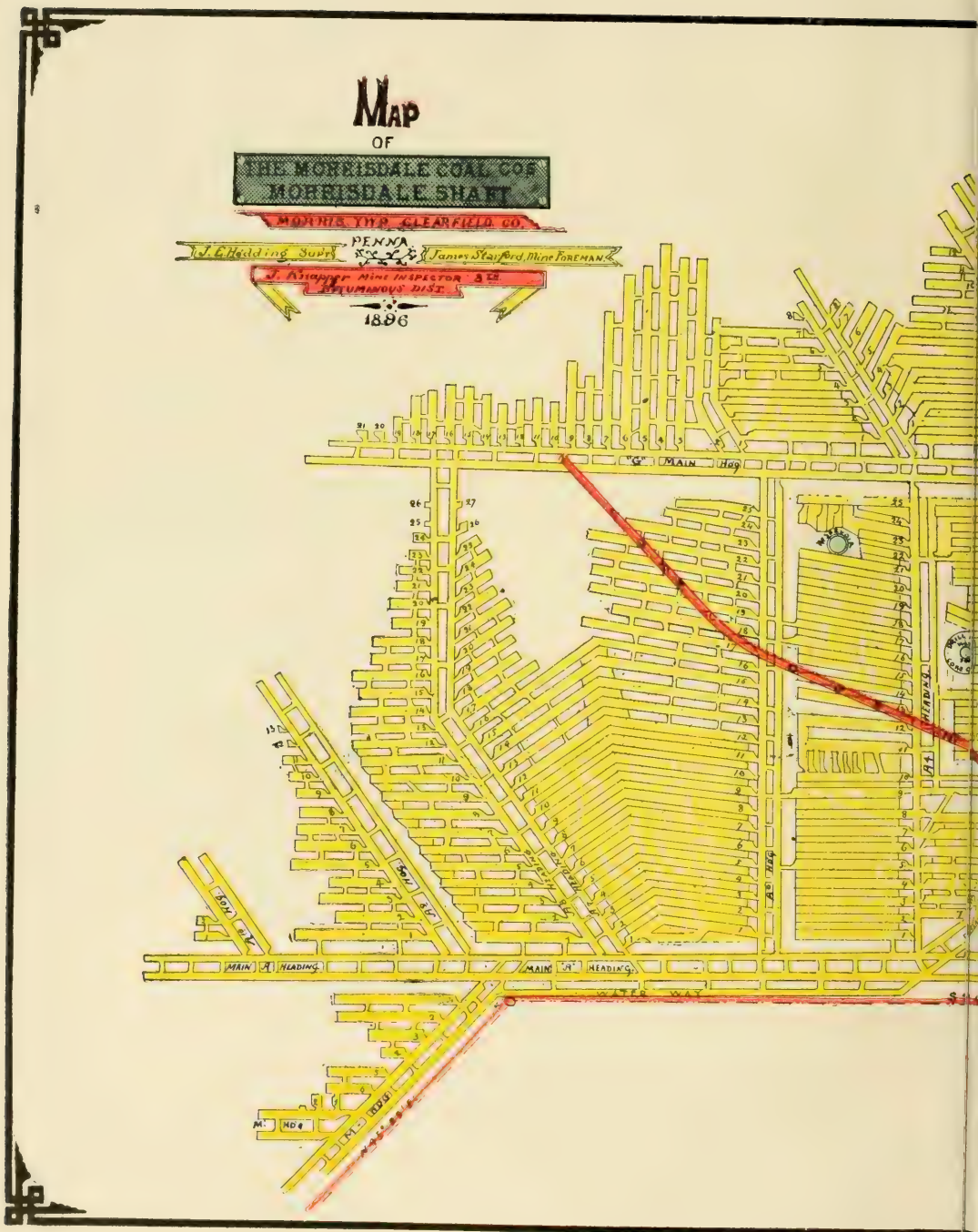
Mount Vernon No. 6 Mine.—Shaft opening on "D" seam having mule haulage inside, and fan ventilation. A sandstone slate is found in the center of the coal seam, separating it so that in places the upper portion is not mined at all. This stone proves highly dangerous to the miners inasmuch as it has to be taken down in all roadways to make sufficient height for haulage way, and the side edges frequently fall on the headings without warnings. But the most dangerous work is while drawing pillars; stone two and three tons in weight hang over the sides, which the loader is continually passing under, and the lower edge is sometimes so small that there is not sufficient surface for props to stand permanently, as the top being heavy will roll off the props, unless spragged on the side as well as below. This is a necessary precaution, and should always be adopted where it is impossible to pull it down. A volume of 29,700 cubic feet of air was in circulation in two currents, the ventilation and drainage being in fair condition. Improvements, three cylinder boilers, 32 feet long and 3 feet in diameter. Foreman, James S. Campbell.

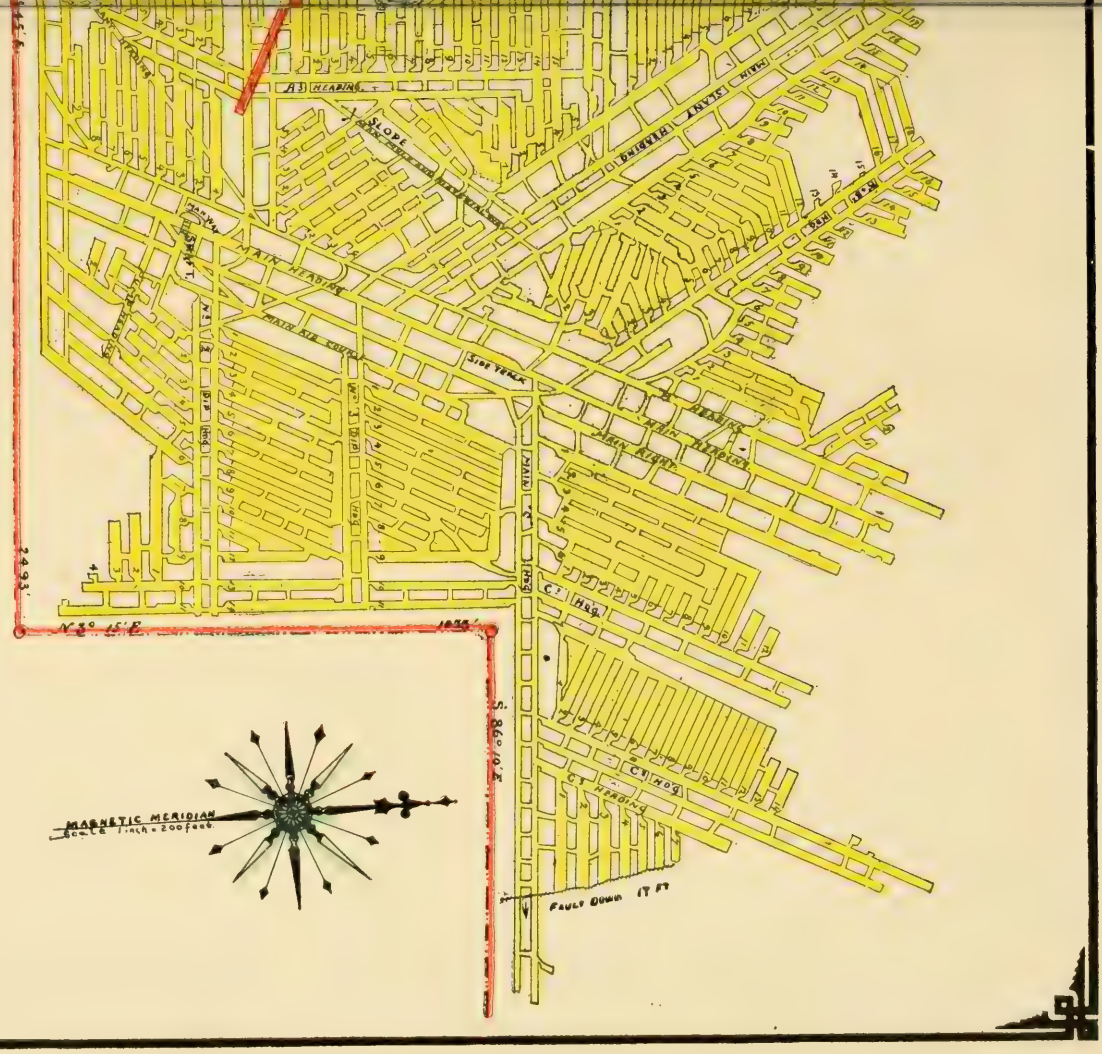
Mount Vernon No. 7 Mine.—Was not in operation during the year.

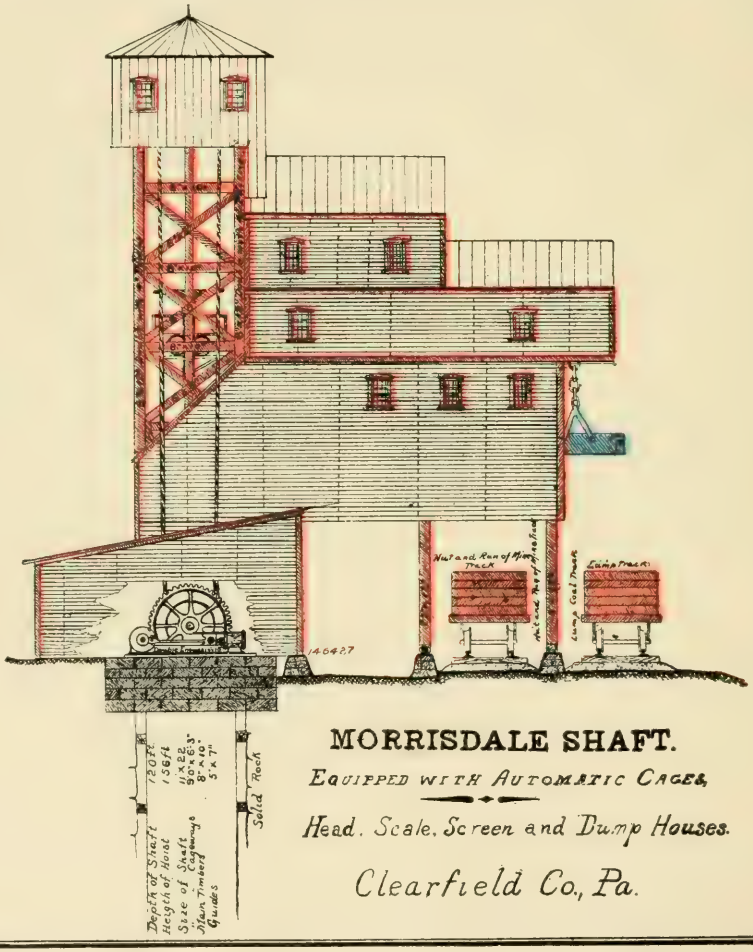
Mount Vernon No. 8 Mine.—Shaft opening on "B" seam, which is full of water not having been in operation during the year.

Midvale Mine.—New drift opening on "D" seam having mule haulage and natural ventilation. This mine is not yet completed. A natural current of 1,800 cubic feet of air was in circulation. Foreman, John Maurice, Jr.

Mabel Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. This mine has not been in operation during the year.


MAP
OF
THE MORRISDALE COAL CO'S
MORRISDALE SHAFT
MORRIS TWP. CLEARFIELD CO.
PENNA.
J. E. Hedding Supt.
James Stafford, Mine Foreman
J. Kinport Mine Inspector 8th
Bituminous Dist.
1896
MAIN "A" HEADING
MAIN "A" HEADING
WATER WAY
MAIN "A" HEADING
MAIN "A" HEADING
MAIN "A" HEADING


A3 HEADING
SLOPE
DIAMOND
MAIN
MAIN HEADING
MAIN RIGHT
MAIN RIGHT HEADING
SIDE TUNNEL
C.T. HDG.
C.T. HEADING
CHINOOK
FAULT DOWN 17 FT
N 30° W
2499'
1035'
S. 89° 01' E.
MAGNETIC MERIDIAN
SCALE 1 INCH = 200 FEET



MORRISDALE SHAFT.

Equipped with Automatic Cages,

Head, Scale, Screen and Dump Houses.

Clearfield Co., Pa.

Mapleton Mine.—Drift opening on "D" seam having mule haulage and natural ventilation. A volume of 9,000 cubic feet of air was in circulation in one current. Drainage and ventilation was in fairly good condition. Foreman, Thomas Duggan.

Montana Mine.—Employs only a few men and did not come under the provisions of the law.

Morrisdale Shaft.—On "B" seam has added rope haulage in the mine during the year, and replaced a 12 foot diameter Brazil fan by a 12 foot diameter Stine fan, which gives a double volume of air. This is the largest operation on this seam of coal in the district. A volume of 96,000 cubic feet of air was obtained on a trial test at bottom of fan shaft, which puts the mine in good condition both as regards ventilation and drainage. The current is in five splits. Added to this report is a sketch of the property. Foreman, James Starford.

Niagara Mine.—Does not come under the provisions of the law this year, employing only five men.

Ocean No. 2 Mine.—Shaft opening on "D" seam having endless rope haulage in the mine, and fan ventilation. This mine has a very treacherous roof, full of breaks, and in places it is of fire clay in large slips, and unless skilled men are employed in such places accidents occur of which there have been quite a number in this mine during the year. I must say, that generally speaking it is the worst roof in the district for a foreman to superintend such a body of men by himself. The ventilation was in fairly good condition, the drainage defective. A large quantity of water flows in here which makes necessary the number of pumps in use. One Cornish double acting 16 inch plungers, one 8 inch Dean pump. Two No. 12, two No. 11, two No. 10 and one No. 7 Cameron pumps. Two cylinder boilers 38 feet long and 36 inches in diameter have been added during the year. One new hoisting cage with most apprpoved safety devices were also added, replacing an old one having none. Foreman, William Marshall.

Pardee No. 1 Mine.—On "D" seam worked only two months at the first of the year and now might be considered as partially abandoned.

Pardee No. 2 Mine.—Drift opening on "D" seam having tail rope haulage and furnace ventilation. This mine has been kept in good condition, with a volume of 41,916 cubic feet of air in circulation in three currents. Foreman, Robert Sneddin.

Parks Mine.—Two drift openings coming on one tipple having mule haulage and furnace ventilation. These mines have been opened to supply the Woodland Fire Brick Company with coal, which does not look to be of very good quality, yet they report good results for firing brick. The coal runs from 20 to 30 inches in thick-

ness. A volume of 7,800 and 4,500 cubic feet of air was measured in each drift, which keeps the mine in very fair condition. Foreman, John W. Baker.

Queen Mine.—Drift opening on "D" seam which having only a few men employed did not come under the provisions of the law during the year.

Reading Mine.—Two drift openings on "D" and "E" seams having mule haulage and furnace ventilation. A number of improvements have been made during the year; namely, an inclined plane built outside to convey the coal from "E" seam to tipple below, thus cutting off 1,200 feet of mule haulage, having 4 feet per 100 foot grade. A new drift to aid the above has been put in, 6 feet by 5½ in the clear and 6 feet high. A new tipple has been erected with space for nine cars to land instead of three as originally; at a total cost of $1,000. The ventilation was only in fair condition while the drainage was good. A volume of 6,000 and 4,000 cubic feet of air was in circulation, each in separate drifts, and in one current. Foreman, Cornelius Maher.

Red Jacket Mine.—Slope opening on "A" seam having single rope haulage and furnace ventilation. This is a new operation and consists of one horizontal boiler 15 feet x 54 inches, and 70 horse power with 44 flues 4 inches in diameter. One single engine, cylinder 6x12 inches and geared 5 to 1. Drum 41 inches in diameter. Steel wire rope ⅝ inch diameter and 1,000 feet long. Slope opening 6x5 in the clear, and 4½ feet high. A furnace is in use for ventilation but is not yet complete. Furnace shaft 5½ feet in diameter and 25 feet deep, with stack 38 feet high. A second opening has been made for an escape way, but is not yet furnished with the necessary stairs to travel on. This mine is opened near the anticlinal and is very irregular. The roof is of sandstone and also is very irregular; at some places it is smooth and good, at others it is very dangerous and rolly, the slips running in no definite direction and very smooth and glassy. A volume of 4,200 cubic feet of air was measured at the furnace which is insufficient for the men employed. Drainage, however, was in good condition. Foreman, E. F. Townsend.

Schwinn Nos. 1 and 2 Mines.—Drift openings on "D" and "C" seams having mule haulage and natural ventilation. An inclined plane is used outside to convey the coal from "D" seam to tipple below. The "D" seam is being worked on crop coal with from 10 to 20 feet of cover which falls in holes to the surface, being crop line of abandoned mines. Lower "C" seam is 24 inches in thickness and is opening very slowly, and owing to the size of the seam it is expensive to mine. A volume of 7,200 and 3,900 cubic feet of air was in circulation in each opening, which kept the ventilation in fairly good

condition. Drainage in "C" seam being deficient. Foreman, Ed. Dawson.

Schwinn No. 3 Mine.—Drift opening on "D" seam having mule haulage and natural ventilation. This opening has been made to drain a body of water from one of the old United Colliery Company's mines which had been abandoned, and to take the coal out that was flooded with water, which is reported to contain 20 acres of pillars and solid coal. This operation like Nos. 1 and 2, is of small capacity. Fourteen men were employed, with 3,900 cubic feet of air in circulation, which kept the ventilation in fair condition for number of men employed; drainage however, was deficient. Foreman, Barney McCann.

Staffordshire Mine.—Is reported as having been abandoned.

Sterling No. 1 Mine.—Two drift openings on "D" and "E" seams, taking outcrop coal on "D" and working solid coal on "E" seam, having mule haulage and natural ventilation on "D" seam and furnace on "E" seam. In the latter mine a volume of 14,400 cubic feet of air was in circulation, but it was insufficient at working faces at the first of the year, but it has been greatly improved, and at this time is in fairly good condition. The lower or "D" seam had no definite current; other general conditions were fairly good. Foreman, John Quinn.

Sterling No. 2 Mine.—Four drift opening on "D" seam having mule haulage and natural ventilation. This mine is good for one year yet with 30 men employed, to take out patches of coal which were supposed to have been taken out several years ago, and which the present firm have been working for several years, which illustrates the wasteful system that was employed when Moshannon coal was plentiful in Clearfield county. The ventilation of this mine is in fairly good condition, with volumes of 4,300 and 1,500 cubic feet of air in circulation, the drainage being in fair condition. Foreman, M. Craig.

Troy Mine.—On "D" seam having mule haulage and furnace ventilation. A volume of 11,000 cubic feet of air was in circulation in one current, and the mine is in fairly good condition both as to ventilation and drainage. Foreman, John Carlan.

Transit Mine.—Has been abandoned owing to expensive mining and the heavy royalty.

Union Mine.—A new drift opening having mule haulage and natural ventilation, which is not yet completed, and as only a few men are employed it does not come under the provisions of the law.

Victor No. 1 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. I found this mine in very fair condition during the latter part of the year, with a volume of 13,440 cubic feet of air in circulation in two currents, separating near the work-

ing faces, on its return to the furnace. Foreman, William Dunsmore.

Victor No. 2 Mine.—Drift opening on "D" seam having mule haulage and natural ventilation. A volume of 6,600 cubic feet of air was in circulation in one current, but was insufficiently conducted to the working faces; the drainage was also in poor condition. Foreman, Richard Ashcroft.

Webster No. 4 Mine.—Two drift openings on "D" seam having mule haulage and furnace ventilation. A stationery engine is employed outside the mine to haul the coal up an incline plane to railroad tracks above mine opening. A volume of 34,800 cubic feet of air was measured at the furnace which was conducted through the mine in several currents. The ventilation and drainage was in fairly good condition. Foreman, John Stoker.

Whiteside No. 1 Mine.—A new drift opening on "D" seam having mule haulage and natural ventilation, which however, is not yet completed. Size of drift in clear, 9x5 feet and 5 feet vertical height; air shaft 7x9 feet and 26 feet deep, trestle 72 feet long, 16 feet wide and 20 feet above railorad tracks at tipple. Rheile Bros. scales are used to weigh coal. A natural current of 4,125 cubic feet of air was in circulation in one continuous current. Foreman, Donald Craig.

Centre County Mines.

Black Diamond Mine.—Drift opening on "B" seam having mule haulage and furnace ventilation. There are two furnaces in this mine which are used alternately, the one in the highest part of the mine working in winter months, and the lower one in summer months, and neither one of itself is of much use, not having sufficient power to ventilate such an extensive mine, so that the ventilation is in poor condition, while the drainage is fairly good. A volume of 8,866 cubic feet of air was in circulation as measured at the return. Foreman, John O'Neil.

Eureka No. 21 Mine.—A drift opening on "D" seam and has been in operation since June 1. Size of openings, drift sills 8 feet, collar 6 feet 9 inches and 5½ feet vertical height; all measurements are in the clear. Escape way shaft 28 feet deep with six flights of stairs properly constructed. Furnace for ventilation 12 feet long 8¾ feet wide and 5 feet high above bars and 2 feet below bars, with bars 10 feet long. Depth of shaft 30 feet, stack 26 feet and 8 feet diameter. There is also an incline plane outside 750 feet long and 1¼ inch steel wire rope is used. Surface buildings are very substantial and complete. The drainage has been kept in good condition, and since the completion of the furnace the ventilation will also be in good condition. Foreman, John Williams.

Central Mine.—Drift opening on "D" seam having mule haulage and natural ventilation. A new opening has been made and a tipple erected, to take out a piece of dip coal and make natural drainage. Size 6½x4½ and 5 feet high. A volume of 7,800 cubic feet of air was measured at the inlet, well circulated through the mine in one current. The drainage was in very fair condition. James Sommerville, foreman.

Ghem Mine.—Drift opening on "B" seam having mule haulage and furnace ventilation. A volume of 11,983 cubic feet of air was measured at the furnace and circulated through the mine in two currents, which however, was poorly conducted to the working faces. The loss of air is caused by brattices being built of bone coal and loose dirt and not even mortaring the crevices, which as before mentioned in this report is not good practice; they should be built either of wood, brick or sandstone. The drainage has been kept in good condition. Foreman, Samuel Pfoutz.

Electric Mine.—Drift opening on "B" seam, and like Ghem mine they have a bad practice of building brattices of bone coal. There is furnace ventilation and mule haulage. A volume of 22,050 cubic feet of air was measured at the furnace, divided into four currents through the mine, but was of insufficient force at faces of headings. Drainage and other details were in good condition. Foreman, William S. Edwards.

Phoenix Mine.—Drift opening on "B" seam having mule haulage and furnace ventilation, which latter is of insufficient power to keep the mine in a healthful condition. A volume of 8,750 cubic feet of air was measured at the furnace, but 300 feet farther in the mine no perceptible current could be found, in spite of the fact that the present foreman had put in 20 brattices on main heading during the year. The furnace is located along a crop line and is in contact with broken strata on all sides where the coal has been mined out, so that it is impossible to make it effective. I requested the company to put in a fan or furnace nearer the solid work, which suggestion they are giving due consideration. Drainage was kept in good condition. Foreman, John Howard.

Orient Mine.—Drift opening on "A" seam having mule haulage and furnace ventilation. This mine has been kept in good condition, both in regards drainage and ventilation. A volume of 12,600 cubic feet of air was measured at the furnace and conducted through the mine in one continuous current. A new haulage has been made to interior of mine a distance of 1,800 feet, laid with 30 pound "T" iron rail, with a view to establishing electric haulage. A uniform grade of 3 per cent. has been made which was very uneven before and was laid with only 16 pound "T" rail. Foreman, Samuel Twigg.

Ophir Mine.—Drift opening having mule haulage and furnace ventilation. On "B" seam of coal and was idle the whole year.

Pioneer Mine.—Employs only a few men and does not come under the provisions of the law.

Jefferson County Mines.

West Eureka No. 1 Mine.—Drift opening on "D" seam having mule haulage and fan ventilation. It has worked only part of the year, owing to the depression in the coal trade in this section. A volume of 12,960 cubic feet of air was measured at the drift return, circulated in two currents, which was kept in good condition, as was also the drainage. Foreman, Henry W. Moore.

West Eureka No. 2 Mine.—Slope opening on "D" seam having single rope haulage and fan ventilation. This mine has been in good condition during the year with an average volume of 11,000 cubic feet of air, and a fan which is capable of producing eight times that quantity, it being 25 feet in diameter. This mine is rapidly being finished owing to the property proving faulty and the coal thin. It will doubtless be exhausted before the close of the next year. Foreman, William D. Jones.

West Eureka No. 4 Mine.—Slope opening on "D" seam having rope haulage and fan ventilation. The fan is capable of producing one-fourth more air than is now in circulation. There was a volume of 71,613 cubic feet of air in several currents, but at several points the brattices were not in proper condition, this causing part of the air to take shorter routes to the return; but this no doubt will now get due attention from the present foreman who was transferred from No. 1 mine to this place.

West Eureka No. 5 Mine.—Slope opening on "D" seam having single rope haulage and fan ventilation. This is a very large mine and has a rather small fan for the friction encountered. Fan is only 16 feet in diameter and it encounters opposition from a 20 foot fan in No. 1 mine, the two being connected on a gob or broken strata line. A volume of 16,460 cubic feet of air was in very fair circulation. The drainage also was kept in good condition. This mine opening runs under the ground near the creek and as the strata is not very heavy or thick above the coal, some of the falls may, where rib drawing is done, disturb the surface and cause a large quantity of water to enter the mine in wet weather, and they have now added improvements to the plant for handling water as follows: one shaft 8x11 feet and 80 feet deep; material encountered, 8 feet of boulders and sand, 62 feet of sand rock, 3 feet of slate, 7 feet of coal. First 8 feet is timbered with 9x10 inch oak placed skin to skin. The shaft has arrangements to hoist coal for boilers. Size of engine

cylinder, 12x20 inches and geared four to one to the drum battery of boilers, to cylinders 30 feet by 40 inches. One marine return flue boiler 4 feet by 10 feet, and one 9 feet by 36 inches, total, four boilers and a substantial house built over them. One pump lodged in sand rock 22 feet from bottom of shaft, and two at bottom. They are No. 12 Cameron pumps. Foreman, Joseph Williams.

West Eureka No. 6 Mine.—Slope opening on "D" seam having single rope haulage and fan ventilation. Exhaust fan 25 feet in diameter. This mine has been in good condition during the year with 84,033 cubic feet of air in circulation in several currents. A number of improvements have been added during the year in the shape of a shaft 11x13 feet and 75 feet deep to pump water, hoist coal for boilers and convey compressed air to pumps, coal mining machines and rock drills. Boilers, three Sterling water tube type, including four drums 15 feet long 3 feet diameter with 216 long tubes, 47 short tubes and 6 angular tubes, each 3½ inches in diameter. Three drums on top and one on bottom. A pair of hoisting engines 12x20 inch cylinders, and an air compressor 26x30 inches. Six Harrison mining machines are in operation in the mine cutting coal. The compressor has power for sixteen more. An Ingersall rock drill is in use driving rock tunnel through fault, following a small leader of coal which is expected to develop into its former height. A small marine engine also worked by compressed air has been placed in the mine to pull rock cars up heavy grade on main heading, and at face of workings. The only fire-damp or inflammable gas found in the district the past year, was at the face of rock tunnel in this mine, at a point where the leader of coal took a rise and it is only noticeable after a suspension of operations for twelve hours. Foreman, Thomas Morgan.

West Eureka No. 10 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. A volume of 32,400 cubic feet of air was measured at the furnace, and circulated through the mine in four currents, but it is insufficient in volume for the number of men employed and extent of workings. I requested the company to put in a new ventilator and suggested a fan, which will, I think, be complied with. The drainage of the mine has been kept in good condition. Foreman, E. F. Reese.

West Eureka No. 11 Mine.—Drift opening on "D" seam having mule haulage and furnace ventilation. The main drift has double tracks for 300 feet when it then starts out on the three heading system on the main, leaving the outside headings for haulage, and the center heading for the return airway to the furnace. A volume of 63,500 cubic feet of air was measured at the furnace and circulated through the mine from four inlets. The furnace has 56 square

feet of bar surface. The general condition of mine is good. This mine had the largest output of any mine in one single day of 10 hours during the year, having put out 2,000 net tons with 20 mules and 12 drivers, which is remarkably large for the power applied. Foreman, Daniel Thomas.

West Eureka No. 12 Mine.—Drift opening on "D" seam on the three heading system on the main, two outer headings for haulage, and center heading for return airway. The general condition of the mine has been good throughout the year, with an average volume of 67,660 cubic feet of air measured at the furnace, which is distributed in four main currents and several sub-currents. The face of main heading has struck very faulty ground, and diamond drill prospecting ahead of property does not show any improvement. Foreman, Jas. Wood.

West Eureka No. 13 Mine.—Drift opening on "D" seam with 7 feet of clean coal in thickness of seam. Two drifts are being put in, size, sill 9½ feet, collar or cap 6½ feet, vertical height 6½ feet. An incline plane is being built on a grade of 11 per cent. 800 feet long, with a large trestle to land 6 or 8 cars if necessary. Shipments of coal may have commenced since my last visit, the facilities for which had not then been completed. Mine superintendent, Thomas Richards is superintending construction and opening.

Summit Mine.—Drift opening on "E" seam having mule haulage and furnace ventilation. This mine has been kept in good condition throughout the year, with an average volume of 10,800 cubic feet of air in circulation in one continuous current. A new air stack has been built, the old one having been destroyed by outside brush fires. Foreman, Isaac Smith.

TABLE 1.—*Showing location, etc., of collieries in the Eighth Bituminous Mine District.*

Name of Colliery.	Name of Operator.	Location—County.	Name of Superintendent.	Post Office Address.
Acme,	O. P. Jones,	Clearfield,	O. P. Jones,	Philipsburg.
Alexandra,	Thomas Blythe & Co.,	Clearfield,	Thos. Blythe,	Madera.
Atlantic No. 1,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Atlantic No. 2,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Baltic Nos. 1 and 3,	Baltic Coal Company,	Clearfield,	J. T. Slinger,	Philipsburg.
Bessemer,	Morris Liveright,	Clearfield,	H. Liveright,	Osceola Mills.
Black Diamond,	Robt. A. Jackson,	Centre,	Robt. A. Jackson,	Osceola Mills.
Champion,	John and Thos. Lobb,	Clearfield,	John and Thos. Lobb,	Brisbin.
Coaldale No. 3,	O. P. Jones,	Clearfield,	O. P. Jones,	Philipsburg.
Coaldale No. 5,	O. P. Jones,	Clearfield,	O. P. Jones,	Philipsburg.
Colorado No. 1,	Bloomington Coal Company,	Clearfield,	A. Dunsmore,	Glen Rickey.
Colorado No. 2,	Elsworth & Dunham,	Clearfield,	Thos. Pilkington,	Philipsburg.
Colorado No. 3,	E. R. Jackman,	Clearfield,	E. R Jackman,	Philipsburg.
Columbia No. 5,	J. L. Mitchell,	Clearfield,	J. H. Crain,	Osceola Mills.
Cuba Nos. 2 and 3,	Stratton Bros.,	Clearfield,	J. L. Stratton,	Philipsburg.
Central,	Thos. C. Heims,	Centre,	Thos. C. Heims,	Osceola Mills.
Decatur No. 1,	John Nuttal & Co.,	Clearfield,	John Nuttal,	Philipsburg.
Decatur No. 2,	John Nuttal & Co.,	Clearfield,	John Nuttal,	Philipsburg.
Donegal,	P. Gallagher,	Clearfield,	P. Gallagher,	Osceola Mills.
Davis mine,	Davis Coal Company,	Clearfield,	Henry Witmore,	West Decatur.
Electric,	Thos. C. Heims,	Centre,	Thos. C. Heims,	Osceola Mills.
Excelsior No. 4,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 5,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 7,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 8,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 9,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 11,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 12,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 13,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 14,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 15,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 16,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 17,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 18,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 19,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 20,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 21,	Berwind-White Coal Mining Company,	Centre,	A. S. R. Richards,	Osceola Mills.
Eureka No. 22,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 23,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 24,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 25,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Eureka No. 26,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Fairmount,	Morris Liveright,	Clearfield,	Henry Liveright,	Osceola Mills.

TABLE NO. 1.—*Continued.*

Name of Colliery.	Name of Operator.	Location--County.	Name of Superintendent.	Post Office Address.
Ghem,	Ghem Coal Company,	Centre,	Sam'l E. Pfoutz,	Osceola Mills.
Gearhart,	Thos. Lee & Co., Limited,	Clearfield,	Thos. J. Lee,	Philipsburg.
Glenwood 1 and 2,	Williams, Morris & Co.,	Clearfield,	J. M. Campbell,	Philipsburg.
Grampian No. 1,	R. C. Fishburn & Co.,	Clearfield,	R. C. Fishburn,	Munson Station.
Grampian No. 2,	R. C. Fishburn & Co.,	Clearfield,	R. C. Fishburn,	Munson Station.
Guion,	Sanford & Duncan,	Clearfield,	Wm. Duncan,	Philipsburg.
Highland,	John Walton & Son,	Clearfield,	John Walton, Jr.,	Philipsburg.
Henderson No. 1,	Delong & Gould,	Clearfield,	W. A. Gould,	Brisbin.
Henderson No. 2,	Delong & Gould,	Clearfield,	W. A. Gould,	Brisbin.
Homestead,	Reese Bros.,	Clearfield,	S. Reese,	Philipsburg.
Herreford,	D. H. Hughes,	Clearfield,	D. H. Hughes,	931 Chestnut St., Phila.
Imperial No. 1,	R. L. Scott & Co.,	Clearfield,	R. L. Scott,	Philipsburg.
Jefferson,	Adams & Co.,	Clearfield,	Geo. B. Friday,	Philipsburg.
Kentuck,	J. R. Fleming,	Clearfield,	J. R. Fleming,	Philipsburg.
Kecks,	Kecks Coal Company,	Clearfield,	H. S. Overley,	Woodland.
Leader,	Richard Hughes,	Clearfield,	H. M. Hughes,	Osceola Mills.
Lancashire No. 1,	T. Barnes & Bro.,	Clearfield,	Thos. Barnes,	Philipsburg.
Lancashire No. 2,	T. Barnes & Bro.,	Clearfield,	Thos. Barnes,	Philipsburg.
Leland,	Cambria Coal Mining Company,	Clearfield,	D. D. Lewis,	Smoke Run.
Logan,	Richard Hughes,	Clearfield,	H. M. Hughes,	Osceola Mills.
Loraine and Ferndale,	Richard Bros. & Co.,	Clearfield,	G. Gould,	Brisbin.
Lane Nos. 1 and 2,	Fred. C. Todd & Co.,	Clearfield,	Fred. C. Todd,	Philipsburg.
Lenore,	Thos. C. Heim & Co.,	Clearfield,	Thos. C. Heims,	Osceola Mills.
Mabel,	Morrisdale Coal Company,	Clearfield,	Jas. E. Hedding,	Morrisdale Mines.
Meadow Brook,	H. C. Cooke & Co.,	Clearfield,	H. J. Cooke,	Philipsburg.
Mapleton,	P. Gallagher,	Clearfield,	P. Gallagher,	Osceola Mills.
Montanna,	J. Swires & Co.,	Clearfield,	Jacob Swires,	Philipsburg.
Morrisdale shaft,	Morrisdale Coal Company,	Clearfield,	Jas. E. Hedding,	Morrisdale Mines.
Mt. Vernon No. 4,	United Colliery Company,	Clearfield,	Jas. Denithorne,	Huntington.
Mt. Vernon No. 5,	United Colliery Company,	Clearfield,	Jas. Denithorne,	Huntington.
Mt. Vernon No. 6,	United Colliery Company,	Clearfield,	Jas. Denithorne,	Huntington.
Mt. Vernon No. 7,	United Colliery Company,	Clearfield,	Jas. Denithorne,	Huntington.
Mt. Vernon No. 8,	United Colliery Company,	Clearfield,	Jas. Denithorne,	Huntington.
Midvale,	Geo. & Wm. Lobb,	Clearfield,	Geo. Lobb,	Brisbin.
Margara,	J. Swires & Co.,	Clearfield,	J. Swires,	Philipsburg.
Ocean No. 2,	Berwind-White Coal Mining Company,	Clearfield,	A. S. R. Richards,	Osceola Mills.
Ophir,	Hoyt & Ashman,	Centre,	A. V. Hoyt,	Philipsburg.
Orient,	Blair Bros.,	Centre,	L. B. Blair,	Tyrone.
Pardee No. 1,	Magee & Lingle,	Clearfield,	W. C. Lingle,	Philipsburg.
Pardee No. 2,	Magee & Lingle,	Clearfield,	W. C. Lingle,	Philipsburg.
Pioneer,	Morris Liveright,	Centre,	H. Liveright,	Osceola Mills.
Phoenix,	Morris Liveright,	Centre,	H. Liveright,	Osceola Mills.

Parks,	Woodland Firebrick Company,	Clearfield,	H. M. Kennedy,	Woodland.
Queen,	Cambria Coal Company,	Clearfield,	D. D. Lewis,	Smoke Run.
Reading,	Penn Iron Company, Limited,	Clearfield,	Cornelius Maher,	Osceola Mills.
Red Jacket,	Hoyt & Lytle,	Clearfield,	A. V. Hoyt,	Philipsburg.
Staffordshire,	T. Barnes & Co.,	Clearfield,	Thos. Barnes,	Philipsburg.
Sterling No. 1,	Ashland Coal Company,	Clearfield,	John Quinn,	Houtzdale.
Sterling No. 2,	M. & T. Craig,	Clearfield,	M. Craig,	Erisbin.
Schwinn Nos. 1 and 2,	H. Schwinn,	Clearfield,	H. Schwinn,	Houtzdale.
Schwinn No. 3,	H. Schwinn,	Clearfield,	H. Schwinn,	Houtzdale.
Summit,	Summit Coal Company,	Jefferson,	Isaac Smith,	Winslow.
Transit,	P. E. Wolmsdorf & Co.,	Clearfield,	P. E. Wolmsdorf,	Philipsburg.
Troy,	Morrisdale Coal Company,	Clearfield,	Jas. E. Hedding,	Morrisdale Mines.
Union mine,	Brown & Dwire,	Clearfield,	Martin Duggan,	Osceola Mills.
Victor No. 1,	Bloomington Coal Company,	Clearfield,	Alex. Dunsmore,	Glen Richey.
Victor No. 2,	Thos. Barnes,	Clearfield,	J. T. Slinger,	Philipsburg.
West Eureka No. 1,	Berwind-White Coal Mining Company,	Jefferson,	A. J. Cook,	Horatio.
West Eureka No. 2,	Berwind-White Coal Mining Company,	Jefferson,	A. J. Cook,	Horatio.
West Eureka No. 4,	Berwind-White Coal Mining Company,	Jefferson,	A. J. Cook,	Horatio.
West Eureka No. 5,	Berwind-White Coal Mining Company,	Jefferson,	A. J. Cook,	Horatio.
West Eureka No. 6,	Berwind-White Coal Mining Company,	Jefferson,	A. J. Cook,	Horatio.
West Eureka No. 10,	Berwind-White Coal Mining Company,	Jefferson,	A. J. Cook,	Horatio.
West Eureka No. 11,	Berwind-White Coal Mining Company,	Jefferson,	A. J. Cook,	Horatio.
West Eureka No. 12,	Berwind-White Coal Mining Company,	Jefferson,	A. J. Cook,	Horatio.
West Eureka No. 13,	Berwind-White Coal Mining Company,	Jefferson,	A. J. Cook,	Horatio.
Webster No. 4,	Beulah Coal Company, Limited,	Clearfield,	Jas. H. Minds,	Ramey.
Whiteside No. 1,	Simmlinger, Burns & Co.,	Clearfield,	S. H. Burns,	Erisbin.

TABLE NO. 2.—*Gives the total number of tons of coal mined and shipped and tons of coke produced in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, etc., in the Eighth Bituminous Mining District for the year ending December 31, 1895.*

Names of Collieries.	Location—County.	Total production in tons of coal.	Total production in tons of coke.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number stationery engines.	Number coke ovens.
Acme	Clearfield	80,595.00		80,290.00	268.00	112		2	500	3	12	1	
Alexandra	Clearfield												
Atlantic No. 1	Clearfield	221,473.32		219,232.23	276.50	282	1		558	11	64		
Atlantic No. 2	Clearfield	153,803.08		152,933.92	227.25	173				6	21	5	
Baltic Nos. 1 and 3	Clearfield	55,775.00		55,775.00	129.50	189		2	500		18		
Bessemer	Clearfield												
Black Diamond	Centre	31,270.00		31,270.00	207.00	67			240		8		
Champion	Clearfield	1,350.00		1,350.00	25.00	99			8		2		
Coaldale No. 3	Clearfield	66,950.00		66,350.00	153.00	94			400	2	11	1	
Coaldale No. 5	Clearfield	31,375.00		31,200.00	166.00	41			100		15		
Colorado No. 1	Clearfield	38,650.00		38,650.00	149.00	83					12		
Colorado No. 2	Clearfield	12,798.00		12,798.00	79.00	58			127		4		
Colorado No. 3	Clearfield	22,544.00		22,544.00	80.00	69					8		
Columbia No. 5	Clearfield	8,908.05		8,908.05	220.00	17			90		2		
Cuba Nos. 2 and 3	Clearfield	7,329.00		7,329.00	215.00	11			37		2		
Central	Centre	13,210.00		13,210.00	108.00	34			50		2		
Decatur No. 1	Clearfield	59,232.00		58,865.00	118.00	102			335		18		
Decatur No. 2	Clearfield												
Donegal	Clearfield	7,958.00		7,958.00	104.00	16			50		2		
Davis Mine	Clearfield	1,083.00		1,043.00	150.00	6			18		1		
Excelsior No. 4	Clearfield	9,233.91		9,778.85	100.00	28				1	7	1	
Eureka No. 5	Clearfield	120,563.58		120,310.52	203.00	191		1	179	7	32	4	
Eureka No. 7	Clearfield	150,428.67		150,438.75	180.00	231		1	524	4	35	4	
Eureka No. 8	Clearfield	23,123.73		23,831.57	70.00	79			76				
Eureka No. 9	Clearfield												
Eureka No. 11	Clearfield	23,265.27		23,265.27	98.00	48		1					
Eureka No. 12	Clearfield	125,418.72		125,321.92	265.25	159			425		9		
Eureka No. 13	Clearfield	140,266.64		140,266.64	239.25	161			498	1	8	1	
Eureka No. 14	Clearfield	88,658.90		88,682.24	220.00	124			682	1	16		

Eureka No. 15,	Clearfield,	38,942.51		38,942.51	253.00	54			245	2	13		
Eureka No. 16,	Clearfield,	106,416.87		106,416.87	210.00	184	2	1	300	1	14	1	
Eureka No. 17,	Clearfield,	8,244.45		8,244.45	118.00	29			59	1	1	1	
Eureka No. 18,	Clearfield,	17,631.13		17,736.37	50.00	77					20		
Eureka No. 19,	Clearfield,	116,064.17		115,898.84	251.00	164			359	1	12	1	
Eureka No. 20,	Clearfield,	39,761.15		39,718.56	108.00	85		2			5		
Eureka No. 21,	Centre,	21,902.85		22,142.27	159.00	51		1	174		8		
Eureka No. 22,	Clearfield,	123,733.14		123,854.12	228.00	185			212	1		1	
Eureka No. 23,	Clearfield,	2,285.94		2,398.13	56.00	25			8	1		1	
Eureka No. 24,	Clearfield,	30,559.31		30,955.79	171.00	46			49		5		
Eureka No. 25,	Clearfield,	36,703.72		36,703.72	284.00	42	1		185		4		
Eureka No. 26,	Clearfield,	1,087.67		1,114.60	57.00	22			8				
Electric,	Centre,	39,247.00		39,247.00	171.00	80			150		4		
Fairmount,	Clearfield,	19,348.00		19,348.00	150.00	39		1	150		3		
Ghem,	Centre,	17,779.95		17,762.20	162.00	33			55		5		
Gearhart,	Clearfield,	51,140.00		50,995.00	148.00	98		1	300		6		
Glenwood Nos. 1 and 3,	Clearfield,	55,339.75		55,339.75	189.00	70			183		9		
Grampian No. 1,	Clearfield,	2,573.50		2,228.46	45.00	35			18		2		
Grampian No. 2,	Clearfield,	6,101.90		6,057.10	59.00	90			68		2		
Guion,	Clearfield,												
Highland,	Clearfield,												
Henderson No. 1,	Clearfield,	14,476.00		14,476.00	207.00	29			30		4		
Henderson No. 2,	Clearfield,	18,700.00		18,700.00	30.00	18			10		1		
Homestead,	Clearfield,												
Herreford,	Clearfield,	2,500.00		2,500.00	90.00	9			10		1		
Imperial No. 1,	Clearfield,	39,250.00		39,250.00	192.00	56			200		6		
Jefferson,	Clearfield,	22,611.00		22,442.00	169.00	46			100		6		
Kentuck,	Clearfield,	1,862.00		1,862.00	15.00	23			12		2		
Keeks,	Clearfield,	19,500.00		19,000.00	201.00	38				1	6	1	
Leader Nos. 1 and 3,	Clearfield,	30,000.00		30,000.00	275.00	33			150		4		
Lancashire No. 1,	Clearfield,	105,498.00		104,200.00	196.50	160		2	940		22		
Lancashire No. 2,	Clearfield,	46,763.00		46,763.00	229.00	69			480		9		
Leland,	Clearfield,	42,000.00		42,000.00	240.00	81	1	1	350	1	3	1	
Logan,	Clearfield,												
Loraine and Ferndale,	Clearfield,	23,019.18		23,019.18	133.50	67		1	160		5		
Lane Nos. 1 and 2,	Clearfield,	28,379.00		28,379.00	114.50	93			115		5		
Lenore,	Clearfield,	19,218.00		19,218.00	168.00	39			78		4		
Mabel,	Clearfield,												
Meadowbrook,	Clearfield,	10,421.00		10,110.00	250.00	22			140		8		
Mapleton,	Clearfield,	7,549.00		7,549.00	80.00	26			60		5		
Morrisdale shaft,	Clearfield,	294,180.00	24,140.00	245,036.00	244.25	442			3,677	6	35	8	106
Mt. Vernon No. 4,	Clearfield,	23,402.45		22,198.40	207.00	83			175	2	4	1	
Mt. Vernon No. 5,	Clearfield,	29,833.05		29,354.40	73.00	133			200	2	18	1	
Mt. Vernon No. 6,	Clearfield,	82,281.95		80,872.80	258.50	136	1	2	500	4	11	1	
Mt. Vernon No. 7,	Clearfield,												
Mt. Vernon No. 8,	Clearfield,									3		1	
Montana,	Clearfield,												
Midvale,	Clearfield,	710.00		710.00	15.00	18			5		1		
Margara,	Clearfield,												
Ocean No. 2,	Clearfield,	131,121.76		127,733.89	209.00	247	1	5		9	39	7	
Ophir,	Centre,												

Table No. 2.—*Continued.*

Names of Collieries.	Location—County.	Total production in tons of coal.	Total production in tons of coke.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number stationery engines.	Number coke ovens.
Orient,	Centre,	44,006.18	.....	44,006.18	257.00	51	.....	.....	504	1	9	.....	.....
Pardee No. 1,	Clearfield,	30,013.92	.....	28,714.35	72.00	120	.....	.....	90	1	7	1	.....
Pardee No. 2,	Clearfield,	316,714.28	.....	316,713.95	276.00	357	1	2	959	2	27	1	.....
Pioneer,	Centre,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Phoenix,	Centre,	16,581.00	.....	16,581.00	311.00	27	.....	.....	68	1	5	.....	.....
Parks,	Clearfield,	11,175.00	.....	.....	309.00	34	.....	.....	.....	.....	2	1	.....
Queen,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Reading,	Clearfield,	9,390.00	.....	9,390.00	68.00	38	.....	.....	71	.....	5	.....	.....
Red Jacket,	Clearfield,	8,496.00	.....	8,350.00	240.00	43	.....	1	94	1	2	1	.....
Staffordshire,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sterling No. 1,	Clearfield,	12,185.30	.....	11,985.30	228.00	59	.....	.....	210	.....	7	.....	.....
Sterling No. 2,	Clearfield,	25,763.00	.....	25,763.00	220.00	35	.....	.....	150	.....	4	.....	.....
Schwinn Nos. 1 and 2,	Clearfield,	3,913.00	.....	3,913.00	90.00	31	.....	.....	40	.....	3	.....	.....
Schwinn No. 3,	Clearfield,	1,900.00	.....	700.00	125.00	10	.....	.....	10	.....	1	.....	.....
Summit,	Jefferson,	10,430.00	.....	.....	300.00	14	.....	1	.....	.....	2	.....	.....
Transit,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Troy,	Clearfield,	9,625.00	.....	9,625.00	65.00	62	.....	.....	120	1	4	1	.....
Union mine,	Clearfield,	9,000.00	.....	9,000.00	225.00	9	.....	.....	72	.....	2	.....	.....
Victor No. 1,	Clearfield,	40,872.22	.....	40,872.22	199.50	71	.....	.....	400	.....	8	1	.....
Victor No. 2,	Clearfield,	33,319.00	.....	33,319.00	240.00	53	.....	.....	290	.....	3	.....	.....
West Eureka No. 1,	Jefferson,	28,000.00	.....	28,000.00	103.00	75	.....	.....	.....	.....	11	.....	90
West Eureka No. 2,	Jefferson,	48,228.00	.....	46,128.00	197.50	71	2	.....	.....	6	12	1	.....
West Eureka No. 4,	Jefferson,	73,481.00	.....	68,481.00	134.00	142	.....	.....	.....	3	10	1	.....
West Eureka No. 5,	Jefferson,	102,364.00	.....	99,364.00	240.00	169	.....	.....	.....	8	14	2	.....
West Eureka No. 6,	Jefferson,	145,083.00	.....	140,000.00	159.00	178	.....	2	.....	7	20	1	.....
West Eureka No. 10,	Jefferson,	93,325.00	.....	93,325.00	151.00	144	.....	.....	.....	1	23	.....	.....
West Eureka No. 11,	Jefferson,	182,112.00	.....	182,112.00	140.00	239	2	2	.....	.....	20	.....	.....
West Eureka No. 12,	Jefferson,	140,454.00	.....	140,454.00	156.00	205	.....	.....	.....	.....	15	.....	.....
West Eureka No. 13,	Jefferson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Webster No. 4,	Clearfield,	88,828.00	.....	88,156.00	165.75	144	1	2	537	1	16	1	.....
Whiteside No. 1,	Clearfield,	1,272.00	.....	1,275.00	25.00	18	.....	.....	.....	.....	1	.....	.....
Total,	.....	4,709,932.17	24,140.00	4,608,287.37	15,210.75	8,071	13	34	18,937	104	849	62	196

Table No. 3.—*Showing the number of each class of employes at each colliery in the Eighth Bituminous Mine District during the year 1895.*

Names of Collieries.	Location--County.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							
		Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	Grand total--inside and outside.
Acme,	Clearfield,	1	68	21	2	6	2	101	.....	3	3	1	4	1	11	112
Alexandra,|||	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Atlantic No. 1,	Clearfield,	1	231	10	11	10	4	267	.....	3	4	1	4	3	15	282
Atlantic No. 2,	Clearfield,	1	136	11	9	7	.....	164	.....	1	3	.....	3	2	9	173
Baltic Nos. 1 and 3,	Clearfield,	1	140	25	2	9	4	181	.....	2	.....	.....	4	2	8	189
Bessemer,*	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Black Diamond,	Centre,	1	40	10	2	6	3	62	.....	1	.....	.....	3	1	5	67
Champion,	Clearfield,	1	12	1	1	2	.....	17	.....	1	.....	.....	.....	1	2	19
Coaldale No. 3,	Clearfield,	1	55	18	3	7	2	86	.....	2	1	.....	4	1	8	94
Coaldale No. 5,	Clearfield,	1	27	6	1	3	.....	38	.....	.....	.....	.....	2	1	3	41
Colorado No. 1,	Clearfield,	1	50	16	2	3	1	73	.....	2	2	1	4	1	10	83
Colorado No. 2,	Clearfield,	1	44	7	.....	4	.....	56	.....	.....	.....	.....	2	.....	2	58
Colorado No. 3,	Clearfield,	1	45	15	.....	3	1	65	.....	1	.....	1	2	.....	4	69
Columbia No. 5,	Clearfield,	1	13	.....	.....	2	1	17	.....	.....	.....	.....	.....	.....	.....	17
Cuba Nos. 2 and 3,	Clearfield,	1	9	.....	.....	.....	.....	10	.....	.....	.....	.....	.....	1	1	11
Central,	Centre,	1	25	4	.....	1	.....	31	.....	.....	.....	.....	1	2	3	34
Decatur No. 1,	Clearfield,	1	71	12	1	9	.....	94	.....	1	.....	.....	6	1	8	102
Decatur No. 2,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Donegal,||	Clearfield,	1	12	.....	.....	1	1	15	.....	.....	.....	.....	.....	1	1	16
Davis mine,||	Clearfield,	.....	3	.....	.....	1	.....	4	.....	.....	.....	1	1	.....	2	6
Electric,	Centre,	1	64	8	.....	3	.....	76	.....	1	.....	2	1	.....	4	80
Excelsior No. 4,**	Clearfield,	1	18	.....	1	3	.....	23	.....	1	.....	1	1	2	5	28
Eureka No. 5,	Clearfield,	1	132	32	2	9	2	178	.....	.....	7	1	3	2	13	191
Eureka No. 7,	Clearfield,	1	198	.....	2	10	7	218	.....	2	2	1	5	3	13	231
Eureka No. 8,**	Clearfield,	1	57	9	1	3	2	73	.....	1	.....	.....	3	2	6	79

\|\|. Mines not in operation during the year.
* Mines working fewer than 10 men.

\|\| New mines.
** Mines abandoned.

TABLE NO. 3.—*Continued.*

Names of Collieries.	Location--County.	Number of Persons Employed Inside.							Number of Persons Employed Outside.							
		Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	Grand totals--inside and outside.
Eureka No. 9,**	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eureka No. 11,**	Clearfield,	1	40	.....	.....	4	.....	45	.....	.....	.....	.....	2	1	3	48
Eureka No. 12,	Clearfield,	1	129	8	4	6	5	153	.....	1	.....	1	3	1	6	159
Eureka No. 13,	Clearfield,	1	130	6	2	8	3	150	.....	2	1	2	3	3	11	161
Eureka No. 14,	Clearfield,	1	83	24	2	7	2	119	.....	2	1	.....	1	1	5	124
Eureka No. 15,	Clearfield,	1	30	11	2	6	.....	50	.....	1	1	.....	2	.....	4	54
Eureka No. 16,	Clearfield,	1	148	15	2	7	2	175	.....	1	.....	1	6	1	9	184
Eureka No. 17,	Clearfield,	1	23	1	.....	1	1	27	.....	.....	1	1	.....	.....	2	29
Eureka No. 18,	Clearfield,	1	61	3	1	3	1	70	.....	1	.....	1	3	2	7	77
Eureka No. 19,	Clearfield,	1	130	10	3	8	2	154	.....	1	1	1	3	4	10	164
Eureka No. 20,	Clearfield,	1	73	5	.....	2	1	82	.....	.....	.....	.....	2	1	3	85
Eureka No. 21,	Centre,	1	38	2	2	2	1	46	.....	1	.....	.....	2	2	5	51
Eureka No. 22,	Clearfield,	1	155	7	3	3	1	170	.....	1	1	.....	10	3	15	185
Eureka No. 23,	Clearfield,	1	13	2	1	1	.....	18	.....	1	1	.....	3	2	7	25
Eureka No. 24,	Clearfield,	1	32	5	1	2	.....	41	.....	1	.....	.....	2	2	5	46
Eureka No. 25,	Clearfield,	1	26	10	2	2	.....	41	.....	.....	.....	1	.....	.....	1	42
Eureka No. 26,	Clearfield,	1	10	2	7	.....	.....	20	.....	.....	.....	.....	.....	2	2	22
Fairmount,	Clearfield,	1	27	4	1	2	1	36	.....	1	.....	1	1	.....	3	39
Ghem,	Centre,	1	27	2	1	2	.....	33	.....	.....	.....	.....	.....	.....	.....	33
Gearhart,	Clearfield,	1	75	8	1	5	2	92	.....	1	.....	1	3	1	6	98
Glenwood,	Clearfield,	1	55	2	1	4	2	65	.....	1	.....	.....	2	2	5	70
Grampian No. 1,	Clearfield,	1	26	.....	2	2	1	32	.....	1	.....	.....	.....	2	3	35
Grampian No. 2,	Clearfield,	1	75	2	2	2	2	84	.....	1	.....	.....	3	2	6	90
Guion,	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Highland,*	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Henderson No. 1,	Clearfield,	1	20	3	4	.....	.....	28	.....	.....	.....	.....	1	.....	1	29
Henderson No. 2,	Clearfield,	1	12	.....	2	1	.....	16	.....	.....	.....	.....	1	1	2	18
Homestead,*	Clearfield,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Herreford,‖	Clearfield,	1	7			1		9								9
Imperial,	Clearfield,	1	42	5	1	4	1	54					1	1	2	56
Jefferson,	Clearfield,	1	32	8		2		43				1	1	1	3	46
Kentuck,	Clearfield,	1	15	5		1		22					1		1	23
Kecks,	Clearfield,	1	25		1	2		29		1			6	2	9	38
Leader,	Clearfield,	1	25		3	2		31		1				1	2	33
Lancashire No. 1,	Clearfield,	1	120	15	2	10	5	153		1		1	3	2	7	160
Lancashire No. 2,	Clearfield,	1	50	10	1	1	4	67		1			1		2	69
Leland,	Clearfield,	1	67	7	1	2	1	79		1				1	2	81
Logan,	Clearfield,															
Loraine and Ferndale,	Clearfield,	1	55	4	1	4	1	66					1		1	67
Lane Nos. 1 and 2,	Clearfield,	1	82			4		87		1			4	1	6	93
Lenore,	Clearfield,	1	30			2		33		1		1	3	1	6	39
Mabel,	Clearfield,															
Meadowbrook,	Clearfield,	1	18		2			21						1	1	22
Mapleton,	Clearfield,	1	18	2	2	2		25					1		1	26
Montana,*	Clearfield,															
Morrisdale shaft,	Clearfield,	1	345	34	15	21	5	421		5	6	3	3	4	21	442
Mt. Vernon No. 4,	Clearfield,	1	64	5	1	3	1	75		1	3	1	2	1	8	83
Mt. Vernon No. 5,	Clearfield,	1	89	22	3	10	2	127		1	1		3	1	6	133
Mt. Vernon No. 6,	Clearfield,	1	94	17	4	5	3	124		2	3		5	2	12	136
Mt. Vernon No. 7,‖	Clearfield,															
Mt. Vernon No. 8,‖	Clearfield,															
Midvale,	Clearfield,	1	8	6	1	1		17						1	1	18
Niagara,*	Clearfield,															
Ocean No. 2,	Clearfield,	1	193	14	2	14	4	228		2	3	1	10	3	19	247
Ophir,†††	Centre,															
Orient,	Centre,	1	41			3	1	46		1			2	2	5	51
Pardee No. 1, **	Clearfield,	1	80	12	5	8	3	109		1	1		8	1	11	120
Pardee No. 2,	Clearfield,	1	219	74	12	20	11	337		2	2		15	1	20	357
Pioneer,*	Centre,															
Phoenix,	Centre,	1	14	8	1	2		26						1	1	27
Parks,‖	Clearfield,	1	27		3	2		33						1	1	34
Queen,*	Clearfield,															
Reading,	Clearfield,	1	28	3	1	2		35		1			1	1	3	38
Red Jacket,‖	Clearfield,	1	30	3	1	2		37		1	1	1	1	2	6	43
Staffordshire,**	Clearfield,															
Sterling No. 1,	Clearfield,	1	45	3	2	3		54		2				3	5	59
Sterling No. 2,	Clearfield,	1	28	2		2	1	34						1	1	35
Schwinns No. 3,‖	Clearfield,	1	7	1		1		10								10
Schwinns Nos. 1 and 2,	Clearfield,	1	22	3	3	2		31								31
Summit,	Jefferson,	1	11		1	1		14								14
Transit,**	Clearfield,															
Troy,	Clearfield,	1	50	3	1	3		58			1		2	1	4	62
Union mine,	Clearfield,		8		1			9								9
Victor No. 1,	Clearfield,	1	50	6	2	3	1	63		1	2		3	2	8	71
Victor No. 2,	Clearfield,	1	38	8	1	2	1	51		1			1		2	53
Webster No. 4,	Clearfield,	1	94	20	4	10	3	132		2	1		7	2	12	144
West Eureka No. 1,	Jefferson,	1	54		2	10	2	69		1		1	4		6	75

** Mines abandoned.
‖ New mines.
††† Mines not in operation during the year.
* Mines working fewer than 10 men.

TABLE No. 3.— *Continued.*

Names of Collieries.	Location.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.								
		Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All company men.	Superintendent, book-keepers and clerks.	Total outside.	Grand totals—inside and outside.
West Eureka No. 2,	Jefferson,	1	50	4	2	5	.....	62	.....	1	3	1	4	.....	9	71
West Eureka No. 4,	Jefferson,	1	98	17	3	8	4	131	.....	1	3	1	7	.....	12	143
West Eureka No. 5,	Jefferson,	1	97	40	6	7	6	157	.....	2	5	1	4	.....	12	169
West Eureka No. 6,	Jefferson,	1	104	26	11	10	9	161	.....	3	5	1	8	.....	17	178
West Eureka No. 10,	Jefferson,	1	101	18	4	8	2	134	.....	1	.....	.....	9	.....	10	144
West Eureka No. 11,	Jefferson,	1	202	5	4	9	5	226	.....	2	.....	.....	11	.....	13	239
West Eureka No. 12,	Jefferson,	1	163	18	3	8	3	196	.....	1	.....	.....	8	.....	9	205
West Eureka No. 13,||	Jefferson,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Whiteside No. 1,||	Clearfield,	1	16	.....	.....	.....	.....	17	.....	.....	.....	.....	.....	1	1	18
Total,	.....	90	5,842	765	199	404	137	7,439	.....	81	69	34	246	102	532	8,071

\|\| New mines.

TABLE No. 4.—*List of fatal accidents that occurred in and about the mines of the Eighth Bituminous Mine District for the year ending December 31, 1895.*

Date of accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location--County.	Nature and Cause of Accident.
Jan. 18.	Patrick Sullivan, ...	Miner, ...	40	1	5	West Eureka No. 11, ...	Jefferson, ...	Skull fractured by a piece of coal flying from a shot and striking through the rib from the next room. The injured man having fired a shot 15 minutes before, had told his neighbor he was going home, but he had forgotten his cap and was just in a cut-hole looking for it when the neighbor's shot went off, striking through the rib where he was sitting. Case proved fatal after five days.
Mar. 14.	Samuel Troxell, ...	Miner, ...	32	1	..	Eureka No. 16.	Clearfield, ...	Instantly killed by a fall of slate in pillar workings. A piece of roof slate fell from roof at corner of rib on the gob side where he was taking down some loose coal, striking him on head and back.
28.	Wm. B. Howe, ...	Boss driver, ...	25	1	1	Pardee No. 2.	Clearfield, ...	Struck by "T" iron rail on back of head, rupturing an artery and causing internal hemorrhage, from which he died in five hours.
April 22.	Thomas Hanson, ...	Miner, ...	24	.....	....	Ocean No. 2.	Clearfield, ...	While cutting top coal a piece of bone coal fell, striking him on the back and dislocating his spine, from which injury he died in the hospital after ten days. The bone coal was made loose by a coal shot.

TABLE NO. 4.—*Continued.*

Date of Accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
April 25.	Robt. Mundy, Jr., ...	Miner, ...	17	.....	..	Webster No. 4, ...	Clearfield, ...	Instantly killed, his back having been broken by a fall of slate in pillar workings while he was lying on his side cutting out a coal sprag. The slip over said stone was plainly seen by his father and known to be dangerous, yet he failed to secure it by timbering, expecting to finish mining cut of coal first.
May 27.	Frank Matchergavitch..	Miner, ...	30	1	2	West Eureka No. 11. ...	Jefferson, ...	Died after two days from rupture of bowels caused by a fall of slate in rib workings while he was shoveling coal out of the gob, from a stump that was crushed and had been abandoned on account of broken strata surrounding it. There was not a sound prop within fifteen feet of him in any direction.
21.	John Flucher, ...	Miner, ...	53	-	...	West Eureka No. 2, ..	Jefferson, ...	Fatal after fifteen days from dislocation of spine; caused by a fall of roof slate in rib workings while he was mining coal. His partner requested him to get up and set a prop, but he failed to take timely warning. His partner stated that he had liquor with him in the mine and he was in a stupor, it being on the night shift.

	14.	Bert Smith,	Miner,	21	...	Leland,	Clearfield,	Fatal after seven days in hospital, from internal rupture and bruised spine, by a fall of roof slate striking him on back and hips while he was undercutting coal on the butts in a face heading where the roof had been shot down. A side edge broke off that had been made loose by shot. The accident happened on the night shift and only two Hungarians were within hearing.
Aug.	15.	Chas. McIntire,	Driver,	21		Atlantic No. 1,	Clearfield,	Fatal after two hours from internal hemorrhage from rupture of artery in chest by being caught by mine cars. His two mules were not going fast enough for him and the front car had just left the track at room switch No. 18. After adjusting the car he borrowed another drivers' whip and taking hold of the trace chain, whipped the mules to a fast run, and at No. 22 room switch he was attempting to get on the moving cars when the first car again left the track catching him between the car and room rib on heading.
Sept.	17.	James Hobba,	Miner,	51	5	Eureka No. 25,	Clearfield,	Fatal after thirteen days; three ribs broken on left side and right collar bone was also broken by fall of coal. He was shoveling small coal in car and standing in front of a cut of coal in rib workings that had been mined and shot but had not yet fallen and having two loose ends. Had not made any provision for his own safety.
	25.	Alfred Cann,	Miner,	37	1 5	Eureka No. 16,	Clearfield,	Instantly killed by a fall of rock on gob side of road. The roof had been shot down on heading eighteen inches in thickness and nearer the face of heading by three feet past where he was bringing up the butt of coal, always following the tight cut in heading. The shooting of roof made one loose end and a slip was seen towards gob side at 45 degrees angle. Two posts were set on road side and one on gob side of stone, but an unseen slip of V shape only a few inches in over the coal face connected with the stone fell crushing him.

TABLE NO. 4.—*Continued.*

Date of accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location--County.	Nature and Cause of Accident.
Oct. 16.	Michael Clark, ...	Miner, ...	24	.....	...	Mt. Vernon, ...	Clearfield, ...	Instantly killed by a fall of rock in rib workings. A side brow of stone where road had been ripped down by shots on driving room had become loosened, and when drawing rib it was released. He knew the stone was dangerous and unsafe to work under, yet he attempted to load a car first and set a prop afterwards, but had not finished when it fell on him.
Dec 12.	Michael Dancak, ...	Miner, ...	30	.	3	West Eureka No. 2, ...	Jefferson, ...	Fatal after five days. Accident was a compound fracture of right leg below knee. He was working in a room and was kneeling in front of a cut of coal which was ready to blast, his back being toward the coal, and he was making a small hole in the bottom to set a prop before firing the shot, and while doing so, the cut of coal rolled over without blasting and having a projecting piece of bone coal on top of it and struck his leg with above results.

TABLE No. 5.— *List of non-fatal accidents that occurred in and about the mines of the Eighth Bituminous Mine District for the year ending December 31, 1895.*

Date of accident.	Name of Person.	Occupation.	Age.	Married.	Name of Colliery.	Location--County.	Nature and Cause of Accident.
Jan. 3,	Steven Zenny, ...	Miner, ...	26	No	Mt. Vernon No. 6, ...	Clearfield, ...	Fall of rock in rib workings, side brow, which broke his thigh.
Feb. 3,	Wm. Gilbert, ...	Miner, ...	34	Yes	Baltic No. 1, ...	Clearfield, ...	Fall of coal which broke his collar bone. Accident caused by mining coal without sprags.
25,	Reese Philips, ...	Dumper, ...	60	Yes	West Eureka No. 6, ...	Jefferson, ...	Leg broken at ankle; struck by haulage rope, which swings to one side when first put in motion and which he knew, yet stood in the way.
Mar. 16,	John Polson, ...	Miner, ...	36	Yes	Mt. Vernon No. 6, ...	Clearfield, ...	A piece of rock off side brow fell on him breaking his wrist.
25,	Geo. Albert Ratcliffe,...	Trip runner, ...	17	No	Baltic No. 1, ...	Clearfield, ...	Thigh broken by falling between mine cars when in motion.
April 11,	Thos. Beyer, ...	Miner, ...	25	Yes	Ocean No. 2, ...	Clearfield, ...	Three ribs broken, shoulder bruised, thigh and spine injured. Both caught under a fall of middle slate while mining the lower bench of coal, which should have been posted up and which they were ordered to do.
11,	Jacob Parsalis, ...	Miner, ...	22	No	Ocean No. 2, ...	Clearfield, ...	
17,	Arthur Jones, ...	Visitor, ...	15	No	Eureka No. 7, ...	Clearfield, ...	Right leg broken by fall of fire clay while standing on heading watching operations of drivers.
May 6,	John Shipley, ...	Miner, ...	58	Yes	Gearhart, ...	Clearfield, ...	Small bone of leg broken by rolling coal which was on floor of mine and while he was in the act of undercutting more coal.
6,	Wm. Newman, ...	Dumper, ...	35	Yes	Eureka No. 20, ...	Clearfield, ...	Compound fracture of thigh, necessitating amputation. Accident caused by mine cars leaving the track when he was between them. The mules turning to one side caused derailing of cars, which danger had previously been pointed out to him.

TABLE No. 5.—*Continued.*

Date of accident	Name of Person.	Occupation.	Age.	Married.	Name of Colliery.	Location--County.	Nature and Cause of Accident.
May 6.	James Turner, ...	Miner boy, ...	13	No	Lancashire No. 1.	Clearfield, ...	Ankle bruised and face cut by a piece of coal rolling against him, which he was in front of, shoveling slack coal.
10.	Andre Olsen, ...	Miner, ...	27	No	Eureka No. 11, ...	Clearfield, ...	Loss of right arm while coupling railroad cars on siding.
17.	Archie Forsythe, ...	Miner, ...	....	.....	Eureka No. 5, ...	Clearfield, ...	Arm and leg cut by fall of coal and bony coal while examining it to see if it was properly secured.
June 4.	Joseph Chedlock, ...	Miner, ...	16	No	Ocean No. 2, ...	Clearfield, ...	Thigh broken by fall of coal, which had been mined and sprags taken out. His father had him stand in front of hanging coal to throw tamping in hole which was being prepared for blasting when coal fell.
8.	James Dawson, ...	Miner, ...	18	No	Fairmount, ...	Clearfield, ...	Face, arms and body severely burned by ignition of powder; caused by carelessly having his burning lamp on his head when taking lid off an open can of powder containing four pounds, lamp falling in same.
18.	Robert McDonald, ...	Car oiler, ...	15	No	West Eureka No. 11, ..	Jefferson, ...	Compound fracture of leg below knee while neglecting his own duty and jumping on moving cars, when they left the track catching him between them.
28.	Benj. Lloyd, ...	Miner, ...	26	No	Eureka No. 13, ...	Clearfield, ...	Leg broken below knee while riding between mine cars, running over an open switch and catching his leg between, some one having changed the switch in his absence.
July 11.	Thos. Conery, ...	Driver, ...	24	Yes	West Eureka No. 11, ..	Jefferson, ...	Leg broken below knee; caused by mine cars leaving the track while he was riding between them attending to the brakes.

	13,	Anthony Panyack,	Miner,	29	Yes	Webster No. 4,	Clearfield,	Right collar bone broken by fall of coal; caused by neglecting to sprag coal while undercutting it.
Sept.	13,	Emil Martin,	Miner,	27	Yes	Pardee No. 2,	Clearfield,	Hip slightly bruised by a piece of slate with feather edge falling and striking him.
	18,	John C. James,	Roadman,	30	Yes	Eureka No. 21,	Centre,	Two ribs broken and shoulder bruised by fall of slate.
	29,	Henry Lester,	Miner,	46	Yes	Pardee No. 1,	Clearfield,	Collar bone broken by fall of coal which he was undercutting. A thin slab on front having been loosened by a shot previously fired.
Oct.	5,	Isaac Gregg,	Miner,	53	Yes	Eureka No. 16,	Clearfield,	Fracture of right collar bone by a fall of coal which he had undercut, sheared and shot, and because the blast had not brought the coal down he, without either spragging or in any other way making it secure, lay down under the coal and commenced mining it deeper, when it fell upon him. This was gross carelessness.
Nov.	16,	James Keble,	Miner,	73	Yes	Webster No. 4,	Clearfield,	Hips bruised by being caught by a mine car at a point along his room rib where there was not sufficient space for his safety, while his partner was bringing loaded mine car down the room.
	20,	Luke Smith,	Driver,	34	Yes	Ocean No. 2,	Clearfield,	Two fingers badly bruised while unloading barrel of oil at bottom of shaft.
	25,	James Fathers,	Driver,	28	Yes	Ocean No. 2,	Clearfield,	Shoulder and hip badly bruised by a fall of slate, caused by mine cars leaving track and knocking prop out letting slate down on him.
	26,	Victor Duey,	Miner,	36	Yes	Eureka No. 29,	Clearfield,	Left foot bruised by a fall of slate while standing on heading.
Dec.	2,	James Morris,	Miner,	19	No	Loraine,	Clearfield,	Left leg broken below knee; caused by fall of roof slate and coal. He had just fired a shot and was returning to charge a second shot when the roof fell. He was careless in returning to the place before the smoke cleared sufficiently to allow him to see if the roof was secure.
	4,	Jos. Stevens,	Miner,	38	Yes	Acme,	Clearfield,	Simple fracture of right thigh.
	4,	Geo. Stevens,	Miner,	18	No	Acme,	Clearfield,	Back bruised. Both injured by same fall of bone coal while undercutting.
	7,	Frank Faron,	Miner,			Eureka No. 5,	Clearfield,	Leg broken below knee by fall of bone coal which he was examining in his working place in the morning.

TABLE No. 5.—*Continued.*

Date of accident.	Name of Person.	Occupation.	Age.	Married.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Dec. 11,	Andrew Sprague, ...	Miner, ...	45	Yes	Lancashire No. 1, ...	Clearfield, ...	Leg broken and back and head bruised by fall of slate which he was wedging down.
16,	Reese Philips, ...	Miner, ...	60	Yes	West Eureka No. 6,....	Jefferson, ...	Leg broken above ankle by a large lump of coal which he had shot down rolling against his leg while he was shoveling slack coal from front of it. It will be noticed that this man was hurt on February 25.
19,	John Lockwood, ...	Miner, ...	46	Yes	Red Jacket, ...	Clearfield, ...	Right arm severely cut by a piece of rock with feather edge falling from roof while he was mining a cut of coal, having previously been requested by his partner to get up and take stone down, he replied that he had never been hurt in his life and was not afraid.

NINTH BITUMINOUS DISTRICT.

(FAYETTE, WESTMORELAND AND ALLEGHENY COUNTIES.)

Connellsville, Pa., February 18, 1896.

Hon. James W. Latta, Secretary of Internal Affairs:

Sir: In compliance with the act of the General Assembly of Pennsylvania, relating to bituminous coal mines, approved May 15, 1893, I have the honor to herewith submit my annual report as Inspector of Mines for the Ninth District for the year ending December 31, 1895.

The tables will show that during the year 5,652,813 tons of coal were mined in the district; this being an increase of 962,002 tons over the production for 1894. Also, the increase in production of coke for the year of 1895 over 1894 was 511,224 tons. The number of employes was 653 less than the preceding year. There was an increase in the average number of days worked of $62\frac{3}{4}$. A few of the coal miners were affected by local strikes, but, on the whole, the coal and coke men had a profitable year, and the workingmen had their wages materially advanced.

There were 21 lives lost in the district during the year this being an increase of 10 over the preceding year. The number of injuries not fatal was 40, the same number as in 1894.

Some of the accidents were remarkable; while some were the direct results of neglect. The table shows that the greater number of the miners killed were Americans or other English speaking people, so that ignorance of the language and of the mining laws cannot be blamed for their unfortunate end. The only advice that can be given is a caution for constant care and faithful observance of the mining laws. When men learn to value their lives more than the price of a wagon of coal the mine will lose its death record. How often does the investigation show that the last determination to set up the post for safety, or take down slate, was really the forerunner of death, and the coveted wagon is often loaded by another hand, perhaps the one that had a few moments before carried the lifeless form of a brother miner from the treacherous pit to daylight. Many new improvements have been made in the Ninth District during the year, especially in the ventilation of the mines. Five new fans have re-

placed defective furnaces or natural currents, three of the fans being of the Capell type. On the whole the mines are in good condition. Many of the mines described in this report are gas producers, but I failed to find gas standing in the gob. There were two fires of a local nature during the year, one at Darr mine, and the other at Port Royal mine. Neither of them occasioned any delay in work or the loss of life or limb.

A description of the mines, the fatal and non-fatal accidents and the usual tables containing the statistics of the district will be found in another part of this report.

All of which is respectfully submitted.

Yours very respectfully,

BERNARD CALLAGHAN,

Inspector.

Causes of Accidents for 1895.	Fatal.	Non-fatal	Widows.	Orphans.
By falls of roof,	5	5		
By falls of coal,	2	2		
By falls of slate,	4	12		
By falls of slate and coal,	2	2		
By mine wagons,	3	12		
By coal cutting machines,		5		
By premature blasts,	1	1		
By explosive gas,	1	1		
By miscellaneous causes,	2			
Total,	20	40	9	21

Nationality of Persons Killed or Injured.

	Irish.	Welsh.	American.	English.	Scotch.	German.	Hungarian.	Slavish.	Italian.	Russian.	Total.
Killed or fatally injured.	..	..	11	2	..	2	1	3	1	1	21
Injured,	2	1	23	4	1	..	1	4	2	2	40
Total,	2	1	34	6	1	2	2	7	3	3	61

The following statistics are compiled from the reports of the operators to this office for the year ending December 31, 1895:

Number of mines in the district,	68
Number in operation during the year,	63
Number of miners (men and boys),	5,598
Number of persons inside, including mine foremen, trappers, etc. (not miners),	942
Total number employed inside,	6,541
Number employed outside,	2,017
Total number inside and outside,	8,558
Production of coal in net tons,	5,652,813

Coke manufactured and shipped in net tons,	1,985,206
Ratio of tons of coal produced by each person employed,	660
Number of lives lost during the year,	21
Ratio of tons of coal produced for each life lost,	282,640
Ratio of persons employed for each life lost,	428
Number of persons injured during the year,	40
Ratio of tons of coal for each person injured,	141,320
Number of persons employed for each non-fatal accident,	213.9
Number of days worked during the year,	14,224
Average number of days worked at 63 mines,	225.77
Number of kegs of powder used in the mines,	14,700
Total number of horses and mules,	623
Number of steam boilers used in the mines,	143
Number of mine locomotives,	14
Number of steam pumps used in the mines,	59
Number of coke ovens in the district,	1,735

Improvements Made in the Mines of the Ninth Bituminous District During the Year.

At the Adelaide mine a new tail rope extension of 2,000 feet was made and a new brick engine house was erected, in which were located a pair of first motion engines, 20x36 inches. At Rainbow a new engine house was built, also a blacksmith house. The tail rope system was extended at this mine to another pit mouth, a distance of 1,300 feet, and a new Clark fan was erected. A new Guibal fan was installed at Banning, and a direct motion engine was attached to the same. A new flue boiler was placed at the Darr mine.

At West Newton a new electric plant was built, comprising a 175 horse power engine; one boiler, 150 horse power; one engine, 15 horse power; used to move the cars on the tipple; and five new coal cutting machines of the Jeffrey type.

At Forest Hill a new steel tipple with full equipment was completed.

An electric locomotive, an electric pump, a new air shaft 90 feet deep and a Capell fan were the improvements at the Pacific mine. The fan is 8½ feet in diameter and is run by electricity.

At Ocean No. 2 a new Capell fan, 12½ feet in diameter, a new boiler, a new electric pump and a blacksmith shop were the improvements of the year.

A new electric pump was put in at Ocean No. 4.

A new force fan, 8 feet in diameter was erected at the Baltimore

and Ohio mine, and a pair of second motion haulage engines were put in. At the Henry Clay mine a new shaft for air was sunk and a 12 foot fan was erected over it. A new pair of hoisting engines were placed and the tail rope was extended 1,600 feet.

At Port Royal mine a new pair of haulage engines were put in on No. 1 side to operate a tail rope system 2,500 feet long. A new boiler, 30 horse power was put in at the Yough slope. A new electric central plant was introduced at Ocean No. 1 to supply the other mines connected with it. The new plant gives a direct current of 5,000 volts. One branch of it drives a locomotive, and also runs a pump. Five new electric coal cutting machines are run by the current; also a Capell fan, 8 feet in diameter. A new steel tipple with all improvements has also been erected.

At Oceola, a new boiler was placed, and the tail rope was extended 1,300 feet. A ditch was cut a distance of 900 feet with an average depth of 2 feet.

At Scottdale Iron and Steel Company's mine the fan was changed to the front parallel opening and a ditch was cut through the Home mine for better drainage.

Mullen: A drill hole well 200 feet deep was sunk and equipped with a deep well pump.

Buckeye: A ten inch hole was drilled 120 feet deep to pump water from the mine.

Coal Brook made extensive improvements, building 50 ovens, driving a new slope, putting in new bins, setting new hoisting engines and building twenty blocks of tenement houses.

Accident List.

John Delmos, an Italian, was killed in the Port Royal mine No. 2, on the morning of January 9, his back having been broken by a fall of slate in a peculiar manner. He discovered a piece of slate falling and in his haste to get out of the way he tripped and fell over a piece of room rail, with the above stated result. He was taken to the hospital, but died five days after. He had not been working long in the mine. He was 23 years old.

On the afternoon of January 25, at Franklin mine, August Mundle, aged 33 years was killed almost instantly in No. 43 room No. 2 entry, while in the act of knocking out a post. He and his neighbor, Fred Autenberg, were accustomed to assist each other when drawing posts. In this case August had only one more to draw, when Fred went in. August saw that it would be dangerous to draw the remaining one and so informed his friend. Fred. continued, however, to strike the post with his ax till it came down and the roof with it, catching him under it. This man was an ex-

perienced but headstrong miner and paid for his characteristic with his life. He left a wife to mourn the loss.

Sebastian Eberly, aged 58 years, was instantly killed at the Valley mine on January 29, by a fall of roof, in the upper room on No. 3 entry. In the rib at which Eberly was working there were two old posts back in the gob and Eberly informed a neighboring worker, Robert Woody, that he was determined to take them out. Woody warned him against the rash act, but he persisted, as he said, the place would look better without them. Eberly started towards the posts and in a short time Woody heard a fall, and going to the spot he gave the alarm. A number of workmen were soon on the spot and they found Eberly under the fall. This man was also considered an experienced miner.

George Bell, a driver in the Port Royal mine No. 2, was burned by an explosion of gas and died twelve days later from the effects of the accident. From the testimony in the case it appeared that the driver, in going after his first trip in the morning, ran against a fall on the entry at No. 28 room. It was customary at this place for the drivers to clean up falls of small quantities and he immediately went for his tools for the purpose. In about twenty minutes he returned and was soon at work. He stood up his full height upon a piece of slate, when his lamp lighted the upper gas, which burned his face, and other parts of his body, also setting his clothes on fire. He ran from the spot to room No. 36, where the flames were extinguished. The mine foreman and his assistants said there was never any gas known to be in this room before, but, strange to say, there was some there every day after the explosion until they took occasion to have the defect remedied. This was an abandoned room and the fire boss did not examine it. I believe that under the law he should have examined it and therefore had him indicted before Justice Smith of Smithton, under article 4, section 2. The company employed E. E. Robbins, Esq., to defend their fire boss. I had the assistance of Inspector Charles Connor in the prosecution, and although we plead our case well, the squire overruled us and decided the case against us. Whether or not the fire boss did his duty I do not assert, but it is certain that fire bosses since that time have held the precedent in mind, and have been careful to avoid a prosecution for a like offense.

William King, a miner, employed at Bell Bridge, was engaged to haul one trip from his working place, named after himself King's entry, to the check house. He was run over a few yards from the pit mouth. The accident was accompanied by peculiar circumstances. A trip of five wagons broke about 200 feet from the pit

mouth. After hauling the other two out he returned and hitched his mule to the three left behind, and while riding in front of the trip his foot caught in the bumper and he was thrown to the track. The first car passed over him, broke both his legs, also crushed his breast bone and some ribs. He was removed to the hospital at McKeesport, but died the third day afterwards. If the trip had not become uncoupled nothing would have happened to him. It was the only trip he intended to haul. King was considered a careful workman. His death was mourned by a wife and five children.

Samuel B. Simpson, a miner, aged 24 years, was killed in Donnelly mine on March 14 in the following manner: He was working in No. 27 room on entry No. 8 and William Welsh and John McAndrews worked in the same entry room No. 26. They were all single men and visited each other very frequently. Welsh put a shot in his coal on the morning named at about 5 o'clock. He lighted the fuse and went back to the road, to avoid the explosion. While the three were listening for the shot they heard it and rushed up to the face to see what it had done. Simpson was in the lead and not seeing any coal torn out, he looked straight at the hole. The real shot then went off, injuring him so severely that he died at 5 o'clock that evening. Welsh was so close to the shot that although his injuries did not prove fatal he is crippled for life. McAndrews was merely scratched. It is against the rules to shoot coal before the run is over, but these men thought to do so and have the shot off and the smoke cleared away by that time, or the mine foreman would see it. The miner working in room No. 24 came in after the three named, and having drilled a hole the evening before, he put three pounds of powder into it, ramming it without making much noise. He was ready with his tamped load, to put his shot off at the same time as Welsh, and his blast went off just a few moments ahead of Welsh's. The three men, knowing nothing of this second load, mistook it for theirs and the result was disastrous. The laws made for the protection of these men were broken by themselves. If the workman in room No. 24, had given the alarm, as is specified by general rule No. 63, these men would have been aware of another shot being fired and would likely have avoided the danger.

Jacob Kough, employed as a miner at Painter mine, was instantly killed on March 29, by a fall of roof in No. 3 heading, while taking out a stirrup of coal. His son, Frank, was working with him at the time of the accident, and said that after they had set up a break row across the heading, and had taken out nearly all the posts, the roof did not fall. They then commenced to dig out this stump. Suddenly it gave a surge. They both ran back, but the mass fell upon

the father just as he reached the break-row. The son said that the fall was remarkably sudden and that his own escape was wonderful. Kough was a practical miner and had worked at this mine for over 20 years. It was a short-sighted policy to draw out posts before first taking out the stumps.

William Lazalle, a single man, aged 25 years, died on April 3, from injuries received on March 27, at Davidson shaft. This man was a driver and a reckless one. He was making his last trip, and had only to haul two empty wagons to a new heading, not far from the shaft, where he had left two loaded ones on the straight heading. Taking advantage of a slight down grade, he put his horse to full speed and arriving at said entry he drove the horse on straight, swinging the empties in the other way. While unhooking the tail-chain, the wagon jolted, swinging him to the outside. Before he could recover himself, the wagon had pinned him against the rib. His body stopped the wagons almost instantly, so small was the space. Two men were standing near and they relieved his as quickly as possibly. His injuries proved fatal seven days after the accident. This man was frequently cautioned by the mine foreman and others against his fast running. Like many others who lose their lives in the mine, he heeded not the warnings.

John Arnold, a driver employed in Henry Clay slope, was injured on June 7, and died two days later, from the effects of the accident. After the dinner hour he started in with an empty trip. A short distance from where he started is the crossing with a dip grade for the empty wagons. It is the custom to check up at this point, in case there might be a loaded trip coming out. As this was the first trip after dinner, and Arnold the second driver to start in, he knew he had a clear road and did not check up. The front wagon left the track at one of the frogs. Its force was not stopped until it had run up against the corner of the entry and jammed him between the wagon and the rib. It was well known among the drivers that to cross the dip grade without checking the wagons was to endanger their lives, but it seems they were willing to assume the risk for the sake of making fast runs.

George Goba was fatally injured in the Darr mine on June 17, and died the same evening. He worked in room No. 6 No. 14 entry, but going into room No. 10 to visit some acquaintances, he sat down upon the track and began to talk to his companions. One of the men was undermining a cut and a piece of this suddenly gave way and fell upon Goba's leg, crushing it. He was sent to the hospital, but did not recover from the shock of the injury and died in the evening.

George Deaken, aged 29 years, was killed in Ocean mine No. 5

in room No. 14 No. 3 entry, on the 11th of July, by a fall of coal and slate. He was considered a very careful man and always kept his working place in good order. While working with Thomas Gibbs on a rib, he had undermined a cut about two feet thick and was coming past it towards the road when it suddenly gave way, crushing him to death instantly. Had he put in sprags, as required by law, the accident might have been averted. The necessity of always observing the precautions pointed out by the laws was evidenced by the fact that the piece did not fall while he was working at it and would not under ordinary circumstances have broken off while sprags were being applied.

Peter Vargo, aged 18 years, employed in room No. 19 No. 5 entry, of the Rainbow mine, was killed on the morning of July 20. This boy had been in this country only 3 months, and was working with his uncle, Jules Vargo, when the accident happened. When the fire boss made his rounds in the morning he noticed that the slate in their rooms was dangerous and marked the spot for the erection of posts. He also reported the danger to the mine foreman, who informed him that it would be best to be particular and so sent him into the room to see that the posts were put in at once, and if it was not done, to have it done. When the fire boss was within 300 feet of the dangerous room, the slate fell upon young Vargo, who had been left by his uncle at work under the treacherous roof while he went for the posts. The boy was instantly killed, and his uncle was in a measure responsible for the mishap, as the youth was not sensible of his danger, and trusted to his uncle for guidance. Full particulars of the accident could not be had, as the men employed nearby, Andrew Prosky and Andrew Bering, were also Hungarians and could give no satisfactory report and probably knew nothing of it.

Joseph Balisk, a Hungarian, employed at the Darr mine, was injured by a fall of slate on August 15, and died six days later. Balisk was bearing in on a piece of coal, which had become dangerous. His working partner warned him of his rashness in continuing to remain under the overhanging mass, but Balisk continued to dig till a large mass of the coal fell upon him, convincing him too late of his stubbornness or ignorance.

Samuel Haldebrand, a miner, aged 30 years, was fatally injured in the Eureka mine No. 10, entry No. 3, on the morning of August 21. The unfortunate miner and another man were working along the face of the last blast, undermining the cut, when a piece of it fell upon him and injured him so seriously that he died three hours later. From the appearance of the place after the accident, it seemed that a proud slip had been in about 15 inches and was cut off

by an end joint. It would appear to me that the place should have shown its dangerous features even before the accident and would have required for reasonable safety the support of sprags or other security. Both men were practical miners and their oversight was strange. Both were Americans and their neglect was probably the result of desiring to get as much coal down with as little extra labor as possible.

Joseph E. Morris was instantly killed at the Buckeye mine on August 24. The larry ran over the end of the railroad, dumping on him. The grade was level to the end of the row of ovens, but desiring to charge the end oven, he ran his horse faster than usual. The larry bumped against the cross tie, which was chained to the rails to prevent it from running over. It rebounded too far back in the opposite direction and he hitched the horse to it to pull it to the correct location, but the horse pulled too far and he stepped in front to use the brake. The chain holding the cross tie had been broken by the force of the other blow, and the larry went over the end of the rails, taking him with it. Morris had been charging at the Buckeye plant for nearly two years and never had any previous mishap.

William Ingles was instantly killed at the Pennsville mine on October 4, by a fall of rock. He and his partner were digging their last load of coal for the day, and also doing the last work they intended to do on a stump, on a rib in the said mine, when the fatality occurred. They had set their break-row and were leaving it when it suddenly gave way, crushing Ingles beneath. His partner had a narrow escape, some of the mass falling upon his heels as he was fleeing. Both men were good miners and had employed the usual precautions, setting plenty of posts, and only 16 feet back from the face. Before the accident there was no sign of a crack or flaw in the roof.

James Balles, aged 19 years, was instantly killed in the Valley mine, on October 17, by a piece of falling slate. He was digging some coal off the corner of his room, the end being open by cutting through to an old room. He and his father were working together, and at the time of the accident the two men were not more than ten feet apart. At the inquest the father said that he and his son had considered the place perfectly safe before the fall occurred. When I visited the spot on the next morning I found the place well secured by posts, but there was still a portion of the slate in the old room beyond the line of the posts, where the slate in the old room had fallen. This room being then driven past the face of the old one a distance of about 20 feet. The piece that fell off this edge, measured about 6½ feet long and 2½ feet wide by 20 inches thick (coal in-

cluded). The father said that had he believed the place dangerous the accident could have been averted, as his boy could have dug the coal without standing below the edge of the slate.

Steve Hoen, a Slav, employed in the West Overton mine, was killed instantly on Saturday, October 19, by a fall of roof. He was shoveling coal into a wagon when the fall occurred. He and his partner, Andrew Labnohic, were working on a rib. Hoen was inexperienced in mining ribs, and was partially under the care of his partner. Labnohic thought it fit to put up a post, but his companion differed with him about getting the wagon filled before the driver came around. Steve then began to dig at a stump in the center of a rib. The stump was too small to admit of further demolishing, but as the coal was soft and Hoen wished to have the wagon filled, he began work upon it. When in the act of shoveling up the coal into the wagon, a large mass of the coal and slate fell upon him, completely covering him. He had been warned by a boy working near him when the posts began to crack, but he did not give heed to the admonition. After three hours of labor the unfortunate man's body was excavated from the pile of coal. His death was occasioned by a very common cause, that of greed and not regarding his personal safety, or the safety of others.

Edward Swink, a trapper boy, was killed at Grace mine on October 26. He was caught by a loaded trip as it entered the slope, the accident having occurred in a very simple manner. The trip was delayed on the outside and the drivers were all sitting at the manway opposite flat No. 7. The boy was trapping on the same flat, about 400 feet distant. Becoming lonesome he joined the other trappers, in waiting on the trip which did not arrive for about 30 minutes. When the empty trip finally arrived, and had passed the drivers, they all hurried to get their mules. At the point mentioned the loads run by gravity to the spot where the rope is released from the empty trip, and although room is plenty where the trip stands, yet on the curve the wagons run close to the rib. On the curve the boy was caught, while endeavoring to get through to the wide open space. He evidently became bewildered, for he had seen several of the drivers start to go through the narrow space and then draw back as they saw the approaching trip too near. The luckless boy lived about five minutes after he was extricated.

John Kundish, a Slavish miner, employed in the Euclid mine, was instantly killed by a fall of slate on November 11. He had been posting his slate up from the time the room had been turned off the entry. It became dangerous, however, and the mine foreman insisted upon him taking the coal down at the face only, for the future. He knocked out some of the posts at the dinner hour, with the in-

tention of loading up some coal when it came his turn on the next round of the driver. His haste was too great, and he ventured too far under the last post. As he struck it for the last time, the roof came with the post, pinning him under its weight. The miner's working place showed care in every respect, barring his haste in tearing down the posts, which act was the cause of him losing his life. He left a wife and two children in his native country. Henry Brittinger, a miner in the Lynch mine, was killed while at work on December 3. This man had finished work upon a piece the preceding day, but thinking to get an easy load of coal, he returned to the worked-out spot and began to dig. A large piece of roof dropped upon him killing him instantly. He was considered one of the best miners in the mine, a reputation which experience certainly had a share in, as he had worked in the same mine for 18 years. He left a wife and six children to mourn his loss.

DESCRIPTION OF MINES.

Mines on the Pittsburg and Lake Erie Railroad.

Located along this road are nineteen mines. All of them ship coal except two, which make coke. Two ship their product by water. The several plants have worked pretty steadily during the year, as indicated by the number of days worked at each. The total average daily employment was cut down somewhat by strikes of a local character at four of the mines. These strikes lasted through a period of about four months, continuing through the busiest period of the year, entailing a great loss upon the operators and the miners. There is now a uniform agreement between the miners and the operators, and such costly disagreements will not be likely to happen in he future, at least not without a breach of the present good feeling and arrangement.

Adelaide.—This plant was operated 300 days during the year. The condition of the mine was good during that time. Although the mine generates explosive gas, I have never found any while I have been there on my visits. This is a creditable feature for a mine that is worked exclusively with safety lamps. The mine is ventilated by a force fan, which distributes 100,000 cubic feet of air per minute through the headings and rooms. The tail rope was extended over 2,000 feet during the year.

Moreland Slope.—This mine worked 300 days and was kept in good order and the prospects are favorable for a continued like report, it being driven to the dip to its boundary line and then worked back to the raise. It generates explosive gas, and is therefore worked exclusively with safety lamps. The ventilation is maintained by a fan, which forces a current through the workings at the rate of 50,000 cubic feet per minute.

Whittset Mine.—This mine has not been worked very steadily during the year. While not in active operation, improvements were going on, which will insure a good output when work is resumed extensively. A new tail rope extension and an additional fan have been added to the plant, the upper side of the mine now being supplied with a separate current.

Wick Haven.—This is a shaft mine, 65 feet deep, and is practically a new mine. The plant was in operation only 192 days during the year. A strike interfered with a fuller list of working days. The workings are not extensive as yet, and the interior is easily kept in good order. There were no improvements during the year. No explosive gas has so far been encountered.

Banning.—This mine was worked 152 days. There were no improvements during the year beyond those necessary to keep the mine and other accessories in good condition. This necessary improvement each day is very often a matter of extreme importance, especially in a mine like Banning, which generates a large quantity of gas. Mixed lights are used. As there is no gob gas, the fan, which is large, is sufficient to keep the gas from concentrating in any dangerous quantity. The danger from slate is more serious than from gas at present, and to compel the miners to adopt safety lamps where they are not necessary, is to increase their danger.

Darr Mine.—This mine was operated only 138 days, having been also affected by the strike. This is the greatest coal producer on the road, and it is probable that had the labor troubles not interfered the plant would have worked nearly full time. The mine is opened up extensively and the best methods of mining are employed. It is a gas producer, but the gas is carefully looked after. A 25 foot fan produces the ventilation, which is good, as is the drainage.

Port Royal No. 2.—To say that this mine is kept in a satisfactory condition, implies a care and attention on the part of the operators that is praiseworthy, for it is located in a position that makes it the most difficult mine in the region to keep in good order. It is close to where the coal changes from the thick to the thin basin. Many of the troubles are probably due to this. This seam is very undulating, and the roof is extremely dangerous in places. The mine also gives off gas in large quantities. One man was burned in the mine and died a few days after, of which a description is given under the heading of accidents. I believe that carelessness had been shown, and had the fire boss indicted before a justice at Smithton. The defendant won the case, but I think the trial had a good effect. Since that time the mine has been kept in the best possible condition, and the gas has been carefully looked after. On June 18 a fire broke out in entry No. 17 which defied the efforts of a force of men from 6

o'clock in the morning until 10 o'clock in the evening, and which finally had to be sealed up. The fire was caused by a shot that had been put off on Saturday afternoon, and the digger had worked in the same place until about 3 o'clock, and would have worked off the shot had the cars not given out. He then shoveled out some of the coal and set a post to keep everything secure until his return on Monday morning. The natural supposition would be that if there had been fire in the working, the miner would have seen it. As far as could be learned nobody was in the place until the fire boss reached the spot on his tour of inspection on Monday morning and discovered the flames. The fire was finally extinguished without any accident, although the work was fraught with danger. The fan could not be stopped on account of the generation of gas. When the sealed up workings were opened up six months after the discovery of the fire, it was found that it was entirely extinguished and the mine is again in good condition. The ventilation is produced by an exhaust fan which distributes a current of air containing 75,000 cubic feet per minute.

West Newton Shaft No. 2.—This mine is in excellent condition. It has been fitted up with an electric coal cutting machine of the Jeffrey type, chain cutting. Whether these machines have improved the general condition of the mine or not they have improved the entries, by making them wider and higher. No explosive gas has been found, but the mine has a fire boss, who makes the usual rounds.

Ocean No. 5.—This mine was operated only 125 days during the year and was not affected by any labor troubles. It seems to depend almost entirely upon the lake trade. It is in good condition and does not generate explosive gas, but has a fire boss to examine the workings every morning. Ventilation is produced by a powerful furnace, which gives more than 60,000 cubic feet of air current per minute.

Forest Hill Mine.—This mine is always in good condition. The mining is done with coal cutting machines, with the Jeffrey cutting bar, which are run by compressed air. Arrangements are being made to introduce electricity. Ventilation is produced by a fan, the current being well distributed throughout the workings.

Pacific Mine.—This mine worked 190 days during the year. A shut down was necessary to prepare for the introduction of an electric locomotive as a coal hauler, which so far has been a success. The ventilation in this mine has been poor for a long time, but an air shaft is now sunk and a Capell fan has been erected, and before this report reaches the Department the mine will be one of the best ventilated in the district.

Sarah.—This mine is small and will always be so, as the boundary is limited. The coal lies in a difficult strata and is hard to mine. The workings were in good order when I made my last visit.

Ocean No. 2.—This mine is extensive, being capable of employing 300 men. It is operated pretty steadily through the year, but the lake season is the busiest part of the year. The ventilation was poor for a long time, but a Capell fan has been erected, with a diameter of 12½ feet, which maintains a good current of air.

Ocean No. 4.—This mine was idle most of the time this and last year. Improvements are still being made by driving headings and raising a swamp and it will be in good condition for a large output when the trade warrants. A heading is being driven to Ocean No. 2 and the ventilation will then be connected to the Capell fan.

Painter & Cornell.—Since the opening of this mine its condition has been good, in which state it yet remains.

Dravo.—This mine is also in good condition. There are several entries driven to daylight, which help to maintain a good current of air.

Browns Nos. 1 and 2.—These mines have not been operated very extensively during the year. Their condition is as reported last year, good.

Lynch.—This is the last mine on the road and was visited only once during the year. An accident caused this. It was supposed to have been exhausted, but when a man was killed in it by a fall of roof slate I went to the place to make an investigation and found eleven men at work digging custom coal, also a driver. They have leased a small quantity of coal on the front of the hill that had been left unworked, and say they do not desire to work more men, that they may remain exempt from the provisions of the law.

Mines on the Belle Vernon Railroad.

There are four mines in the Ninth District located along this road. None of them ship by rail, all employing the river and can consequently work only when the stage of water will allow the floating of craft. One of the mines along this road, Lovedale, has not been in operation for over 3 years, although there is plenty of coal left in the workings.

Belle Bridge.—This mine was operated only 86 days during the year. The hill under which the original entry was made has been all worked out and the engine house has been changed to the front of the hill, the tail rope system being placed in the new hill. This arrangement is a great improvement and made their plant one of those which can be numbered among the list of well kept mines.

Lovedale.—This mine was not worked during the year and was not visited.

Horner & Roberts.—This mine has the distinction of being worked by its owners. The miners formed a stock company called the Elizabeth Coal Mining Company. The plant was in active operation 148 days during the year. The ventilation is not very good, but the miners are making an effort to improve it. It is just a little below the actual requirements of the law.

H. D. O'Neil.—This mine is the first and only one on the road worked with coal cutting machines. The plant has worked pretty steadily during the year, but the force of men has been small, as the low water hindered the loading and shipping of coal during the greater part of the year. The ventilation is produced by a furnace. The drainage and the general condition of the mine is good.

Mines Along the Baltimore and Ohio Railroad.

Baltimore and Ohio.—This is the first mine on the road and is located at Connellsville. It works every day during the year Sundays not excepted. After making changes in machinery which compelled a shut down of three days, the plant had a record of working 362 days in the last year. The coal is all used by the locomotives on the Baltimore and Ohio railroad, which accounts for the time made. A new fan was placed in the mine during the year and the current of air has been good since then.

Davidson Shaft.—This plant worked about full time, as its coal is made into coke, the trade in which has been good during the year. Safety lamps are used exclusively, although little explosive gas has ever been found. A sweeping current of air maintains a distribution of air sufficient to allow open lights but no risks are taken with the gas. The progress made in the driving of headings to the boundaries before turning any rooms is commendable. I have found none but good reports in all my visits to this mine.

Plummer.—This mine also made nearly full time. The only improvement made during the year was the extension of the tail rope to the dip side, where the most of the coal now is. I always find this mine in excellent condition, both as to drainage and ventilation. There is not a trap door in the mine. I overlooked this mine in my last report, but the same report could have been made then as I now make.

Henry Clay.—A new tail rope system has been introduced into this mine during the year which gives good results. Heretofore the mules hauled the coal to the foot of the slope from whence it was hoisted to the tipple in three wagon trips. By the addition of an extra drum on the engines a trip of eighteen wagons can be hauled to the foot of the slope, when they can be hoisted to the tipple as before. Although no gas is ever found in the mine, safety lamps are used. Everything connected with it is in satisfactory condition.

Tyrone.—There is not much solid coal to be worked in this mine now, but there are many ribs and stumps. Had it not been for the liberal posting during the last two years few of these could be worked now. The management deserves credit for their arrangements for the taking out of the last coal. The pillars were not left large enough originally which has caused trouble in digging out the remaining stumps; the intention was not to draw them, but the present company in doing so are observing the requirements of the law.

Sterling.—This mine did not work any during the year and was not visited. It is self draining. Little coal remains to be mined.

Jackson.—Work was carried on very steadily during the year, making 299 days. Everything is in good condition.

Sterling No. 2.—This mine, also called Jimtown, did not work during the year.

Eureka.—This mine made a good record in the number of working days during the year, and the condition of the workings and entries has been good. This is the first mine on the Baltimore and Ohio below Connellsville that ships coal, the others all producing their coal for the manufacture of coke. No improvements were needed and none were made. The general condition of the mine is good. A fan maintains the ventilation on one side and a furnace on the other.

Smithton No. 1.—This mine was idle during the year, but No. 2 has been running the same as the other mines surrounding it. Little can be said about Smithton No. 2, as it is a new mine. A fan distributes a strong current of air. The drainage is good and the relations of employers and employes are pleasant.

Port Royal No. 1.—Little work has been done in this mine for some time. A new tail rope system has been completed, the engines being located in the pit. The mine is now in good condition for next season's trade.

Euclid.—This mine is well cared for in all particulars, all the requirements of the law being observed. No improvements have been made during the year. There is no place more in need of a new system of hauling the coal and handling it as well as the mine water. It would certainly be economy to make a change.

Yough Slope.—This mine is in fair condition at present. A bad roof over a great part of the mine causes much trouble at times. It needs much attention, and is getting it.

Amyville. This plant has been kept in good order and from present appearances will not experience any trouble for some time to come.

Ocean No. 1.—This is a large mine and has had many improvements during the year. It has been fitted up with a new electric plant; a motor to haul the coal; an electric pump; electric coal cut-

ting machines; also a new Capell fan, which has doubled the air current which was formerly produced by a furnace.

Dilworth.—I believed that this mine would have been totally exhausted before the year was out, but such has not been the case. On account of the scarcity of room for a large shift, a double shift has been employed for some time. It is surprising how much coal remains in a mine after all the rooms and headings have been worked to their termini. The condition of this mine is good, for one in its last stages.

Shaner No. 2.—This mine has a bad roof and also gives off explosive gas at the defective parts. If the increase of gas continues, the present ventilation will not be sufficient to deal with it. The management realizes this and will make the best effort to prevent a dangerous condition. The fan ventilator is small and somewhat handicapped.

Guffey.—This mine is ventilated by a furnace and although extensive, is in good condition.

Big Chief.—This mine is not in bad condition, but the current of air would be more satisfactory if the furnace were not so far removed from the workings. The operators realize this disadvantage and have ordered a fan. The erection and operation of this will place the mine upon as good a footing as its neighbors.

Osceola.—The tail rope has been extended in this mine to another entry, this being a great improvement in the haulage system. The ventilation and drainage are fairly good.

Mines on the Mount Pleasant Branch.

Rist.—I reiterate my report of last year concerning this mine, merely stating that it is in the best condition.

White.—This mine is also up to the full requirements of the law. Arrangements are being made to put in a tail rope haulage. This will be a saving for the mules as the present haulage is too long.

Summit Mine and Eagle.—These two mines are virtually one. They are kept in perfect condition. The fan ventilation and drainage are perfect.

Franklin.—This is not a large mine, but things run along very smoothly. The ventilation is produced by a furnace and is strong, and well distributed.

Tip Top.—This mine was in operation all the year for the first time in many years. It is not large but is well kept up. Drainage and ventilation are all that could be desired in a mine.

Valley.—This is one of the best worked mines in the district. The ventilation is maintained strongly and well distributed. The drainage is a matter for commendation and the entire mine is a model in many respects.

Scottdale Iron and Steel Company.—This is a small mine, the coal of which is used by the Scottdale Iron and Steel Company. The fan ventilation is maintained strong to the face of the workings. The drainage was poor until a ditch was cut through the old Home workings, which has made a marked improvement.

Dexter.—This is another small operation. The product is used for the manufacture of coke. Little solid coal remains, but many ribs and stumps are yet to be worked. The ventilation is left to nature's rules, which means that it is weak, but so far no one seems to have suffered. The drainage is good.

West Overton.—This mine also has little solid coal in the hill now being worked out. There is a small quantity on an opposite hill, and this the operators have determined to open in a short time. The ventilation is natural, and very natural, as the surface is so thin that daylight can be seen almost throughout the whole mine.

Emma.—Eleven miners work in this mine. There is not much solid coal left to be worked. The surface is thin and daylight can be seen through many places, in consequence of which the ventilation is natural.

Rising Sun.—This mine is always found in good condition. A furnace, with the aid of surface falls, maintains a good ventilation. The mine is also well drained.

Bessemer.—This mine is sometimes not up to the full requirements in regard to ventilation. This defect is aided by a surface fall. The furnace is located too far from the workings to be of marked service. The fan which is now spoken of as a near future improvement would remedy the evil.

Buckeye.—Conditions at this mine are now favorable. The dip workings were drowned out last spring by surface water. This is not likely to occur again.

Mullen.—The legal requirements are all observed here. Nothing of special note has been done at the mine during the year.

Hazlett.—This plant had one man digging coal, which I suppose was all consumed at the boilers to make steam to keep the pit pump going. The output during the year was probably not more than 300 tons.

Painter.—Part of this mine is ventilated by a furnace and the other part is ventilated by falls of the surface. The last is the best, although the first is not bad. The drainage keeps the mine pretty dry.

Diamond.—This is a small mine, and has been driven through to another field, where a few acres of coal are located. If the coal is good it will keep the mine going for some time. The ventilation is natural but sufficient.

Mines Along the Pennsylvania Railroad Southwest Branch.

Coal Brook.—This is a fine mine. A new slope has been driven and a new engine plane established. This will run to the dip of all the coal and make good hauling. The ventilation and drainage are good.

Grace.—This is an extensive mine and is always kept up to the requirements of the law.

Pennsville.—The ventilation and drainage of this mine are also good.

Enterprise.—I did not visit this mine during the year.

Union.—This is a small mine but is always in good condition.

Donnelly.—The condition of this mine is good. The rope haulage has been extended, and a new tail rope put in to suit the grade, and this arrangement works well.

Report of Cottage State Hospital.

There were 248 persons treated during year; some of them died, and quite a number of them were cured, while some are yet under treatment.

Their occupations were:

Miners,	114
Laborers,	52
Railroaders,	33
Boys and others with no occupation,	33
Housekeepers entered for operations,	8
Carpenters,	4
Butchers,	2
Painter,	1
Bookkeeper,	1
Total,	248

A more detailed account could be given, but it is sufficient to say that there were quite a number of amputations made, and although the list of miners is large, quite a number of them were injured while not on duty, and the same may be said of some of the others. Everything in this institution is very satisfactory.

BERNARD CALLAGHAN,
Inspector.

TABLE NO. 1.—*Showing location, &c., of collieries in the Ninth Bituminous Mine District.*

Name of Colliery.	Name of Operator.	Location--County.	Name of Superintendent.	Post Office Address.
Adelaide,	H. C. Frick Coke Company,	Fayette,	James A. Childs,	Adelaide.
Amyville,	Youghiogheny Gas Coal Company,	Westmoreland,	John W. Peters.	Suterville.
Browns No. 1,	W. H. Brown's Sons,	Allegheny,	James A. Dewar,	Boston.
Browns No. 2,	W. H. Brown's Sons,	Allegheny,	James A. Dewar,	Boston.
B. & O.,	Stillwagon & Marietta Company,	Fayette,	Clair Stillwagon.	Connellsville.
Banning,	Morgan, Moore & Bane Company,	Fayette,	J. Baysinger.	West Newton.
Belle Bridge,	Belle Bridge Coal Company,	Allegheny,	Wm. M. Feliaborn,	Belle Bridge.
Big Chief,	John Blyth & Company,	Westmoreland,	H. D. Thompson,	Robbins.
Buckeye,	McClure Coke Company,	Westmoreland,	James Dumphy,	Stouffers.
Bessemer,	McClure Coke Company,	Westmoreland,	James Devlin,	Mt. Pleasant.
Coal Brook,	McClure Coke Company,	Fayette,	J. P. Bremen,	Scottdale.
Davidson shaft,	H. C. Frick Coke Company,	Fayette,	John I. Munson,	Connellsville.
Dexter,	Joseph R. Stouffer & Co.,	Fayette,	S. R. Fairchilds,	Scottdale.
Donnelly,	McClure Coke Company,	Westmoreland,	George W. Reese,	Alverton.
Darr,	Osborne, Saeger & Co.,	Westmoreland,	A. W. Osborne,	West Newton.
Dillworth,	Wm. P. Dilworth & Co.,	Westmoreland,	Thomas Whiteman,	Frank.
Dravo,	Lake Shore Gas Coal Company,	Allegheny,	C. H. Wisser,	Robbins.
Diamond,	McClure Coke Company,	Fayette,	J. H. Culler.	Scottdale.
Eureka,	Eureka Coal Company,	Westmoreland,	William McCune,	West Newton.
Euclid,	Ohio and Pennsylvania Coal Company.	Westmoreland,	James A. Watkins,	Fitz Henry.
Emma,	J. W. Overholt & Co.,	Westmoreland,	J. W. Overholt,	Scottdale.
Enterprise,	McClure Coke Company,	Westmoreland,	J. P. Brennen.	Scottdale.
Franklin,	B. F. Keister,	Fayette,	B. F. Keister.	Summit mines.
Fort Hill,	W. J. Rainey,	Fayette,	T. J. Mitchell,	Vanderbilt.
Forrest Hill,	Jas. W. Ellsworth,	Allegheny,	John Simpson,	Suterville.
Grace,	W. J. Rainey,	Fayette,	William Johns,	Moyer.
Guffey,	Youghiogheny Coal Company.	Westmoreland,	John F. Hossack,	Scott Haven.
Hazlett,	McClure Coke Company.	Westmoreland,	J. P. Brennan.	Scottdale.
Henry Clay,	H. C. Frick Coke Company,	Fayette.	W. C. Mullen.	Broad Ford.
Horners & Roberts,	Elizabeth Coal Company,	Allegheny,	Archie Cowie.	Elizabeth.
H. D. O'Neil,	H. D. O'Neil,	Allegheny.	H. D. O'Neil,	Elizabeth.
Home Works,	Stouffer & Wylie,	Fayette,	J. H. Wylie,	Everson.
Jackson,	James Cochran.	Fayette,	P. G. Cochran,	Dawson.
Lynch,	H. D. Lynch,	Allegheny,	H. D. Lynch,	McKeesport.
Lovedale,	John A. Wood,	Allegheny,		
Mullen,	McClure Coke Company,	Westmoreland.	H. L. Patterson,	Stouffer.
Mayfield,	McClure Coke Company,	Westmoreland,	George W. Reese,	Alverton.
Morgan,	H. C. Frick Coke Company,	Fayette,	Wm. C. Mullen,	Broad Ford.
Ocean No. 1,	Youghiogheny River Coal Company,	Westmoreland.	John F. Hossack,	Scott Haven.
Ocean No. 2,	Youghiogheny River Coal Company,	Allegheny,	John F. Hossack.	Scott Haven.
Ocean No. 4,	Youghiogheny River Coal Company,	Allegheny,	John F. Hossack,	Scott Haven.
Ocean No. 5,	Youghiogheny River Coal Company,	Allegheny,	John F. Hossack,	Scott Haven.
Osceola,	Osceola Coal Company.	Allegheny,	J. W. Shields,	Emblem.
Pacific,	Youghiogheny River Coal Company,	Allegheny,	John F. Hossack.	Scott Haven.

Painter & Cornell,	J. W. Painter Coal Company	Allegheny,	Robert Carnell,	Boston.
Port Royal,	Port Royal Coal and Coke Company.	Westmoreland.	H. C. Marshall,	Fitz Henry.
Plumer,	H. C. Frick Coke Company.	Fayette.	John I. Munson,	Connellsville.
Pennsville,	J. D. Sherrick & Co.,	Fayette.	John D. Sherrick,	Pennsville.
Painter,	McClure Coke Company,	Fayette,	H. C. Culler,	Scottdale.
Rainbow,	Rainbow Coal Company.	Fayette,	A. W. Osborne,	West Newton.
Rist,	H. C. Frick Coke Company.	Fayette.	Wm. C. Mullen.	Broad Ford.
Rising Sun,	McClure Coke Company,	Westmoreland.	James Devlin,	Mt. Pleasant.
Sarah,	Douglas Coal Company,	Allegheny,	Freeman Hood.	Blythedale.
Scottdale Iron and Steel Co.,	A. S. Livengood,	Fayette.	A. S. Livingood.	Everson.
Shaners No. 2,	Criterian Coal Company,	Westmoreland.	Walter O'Malley,	Youghiogheny.
Smithton No. 2,	Waverly Coal and Coke Company,	Westmoreland.	John Harris,	Smithton.
Sterling No. 1,	H. C. Frick Coke Company.	Fayette.	Thomas Lynch,	Scottdale.
Sterling No. 2,	H. C. Frick Coke Company.	Fayette,	Thomas Lynch,	Scottdale.
Summit,	H. C. Frick Coke Company.	Fayette.	R. O. Thomas,	Summit Mine.
Tip Top,	H. C. Frick Coke Company,	Fayette.	James Lynch,	Valley Mines.
Tyrone,	Laughlin & Co., Limited.	Fayette.	Clifton Wharton,	Broad Ford.
Union,	McClure Coke Company,	Westmoreland.	Braden Hurst,	Alverton.
Valley,	H. C. Frick Coke Company.	Fayette,	James Lynch,	Valley Mines.
West Overton,	H. C. Overholt,	Westmoreland.	B. F. Overholt,	West Overton.
West Newton,	Osborn, Saeger & Co.,	Westmoreland.	W. T. Allison.	West Newton.
Wick Haven,	Youghiogheny Mining Company.	Fayette.	Frank Morrison,	Banning.
White,	H. C. Frick Coke Company,	Fayette,	R. O. Thomas,	Summit Mines.
Yough Slope,	Yough Slope Gas Coal Company.	Westmoreland.	Alex. Moreland,	West Newton.

TABLE No. 2.—*Gives the total number of tons of coal mined and shipped and tons of coke produced in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, &c., in the Ninth Bituminous Mining District, for the year ending December 31, 1895.*

Names of Collieries.	Location.	Total production in tons of coal.	Total production in tons of of coke.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Number coke ovens.
Adelaide,	Fayette,	301,050	204,700	.....	290	300	.....	1	.....	4	27	1	342
Amyville,	Westmoreland,	74,250	.....	74,250	165	123	.....	.....	200	.....	9	.....	.....
Boston No. 1,	Allegheny,	25,300	.....	25,300	25	254	.....	2	10	6	12	.....	.....
Boston No. 2,	Allegheny,	70,070	.....	70,070	102	173	.....	.....	40	3	8	1	.....
B. & O.,	Fayette,	43,733	.....	43,733	362	29	.....	.....	20	2	2	.....	.....
Banning,	Fayette,	135,009	.....	135,009	152	211	.....	3	300	8	13	.....	.....
Belle Bridge,	Allegheny,	12,375	.....	12,375	86	180	1	.....	.....	2	6	.....	.....
Big Chief,	Westmoreland,	85,822	.....	85,822	205	158	.....	.....	200	1	6	.....	.....
Buckeye,	Westmoreland,	97,000	64,484	.....	283	129	1	.....	.....	5	14	.....	160
Bessemer,	Westmoreland,	79,500	52,769	.....	286	115	.....	.....	125	.....	8	.....	136
Coal Brook,	Fayette,	58,000	38,214	.....	267	96	.....	.....	.....	1	9	.....	120
Davidson Shaft,	Fayette,	176,500	123,480	.....	291	212	1	.....	.....	7	18	2	330
Dexter,	Fayette,	17,975	17,712	.....	253	20	.....	.....	20	.....	3	.....	40
Donnelly,	Westmoreland,	101,000	67,204	.....	285	152	1	1	200	5	12	1	252
Darr,	Westmoreland,	198,014	.....	198,014	138	243	2	3	800	5	12	.....	.....
Dillworth,	Westmoreland,	27,960	.....	27,960	250	30	.....	.....	30	.....	3	.....	.....
Dravo,	Allegheny,	42,972	.....	42,972	164	165	.....	.....	50	.....	9	.....	.....
Diamond,	Fayette,	40,000	26,284	.....	272	47	.....	.....	20	.....	3	.....	66
Eureka,	Westmoreland,	175,000	.....	175,000	269	179	1	.....	800	2	11	.....	.....
Emma,	Westmoreland,	27,151	18,159	624	282	24	.....	.....	.....	1	2	.....	36
Euclid,	Westmoreland,	79,668	2,347	79,668	174	134	1	1	400	3	8	.....	25
Franklin,	Fayette,	32,238	22,375	.....	279	38	1	.....	20	.....	4	.....	50
Fort Hill,	Fayette,	157,000	105,000	.....	300	262	.....	1	.....	5	15	1	317
Forrest Hill,	Allegheny,	223,892	.....	221,766	215	228	.....	4	630	3	18	.....	.....
Grace,	Fayette,	176,400	117,600	.....	280	306	1	.....	800	3	18	.....	408
Guffey,	Westmoreland,	105,720	.....	105,720	160	203	.....	.....	90	.....	17	.....	.....

Henry Clay,	Fayette,	105,000	70,600		276	123	1	2	5	4	13	1	120
Horner and Roberts,	Allegheny,	36,870		36,870	148	130			74	1	6	1	
H. D. O'Neil,	Allegheny,	57,816		57,816	176	95		1	48	2	6		
Home Works,	Fayette,	16,371	11,582	2,056	300	14					1		20
Hazlett,	Westmoreland,	300		300	280	1							
Jackson,	Fayette,	38,585	24,934		299	50				1	4		58
Lynch,	Allegheny,	3,700		3,700	100	13	1		10		1		
Mullen,	Westmoreland,	52,000	34,578		283	79				2	8		82
Mayfield,	Westmoreland,	22,500	14,958		143	41			50	1	5		104
Morgan,	Fayette,	31,700	20,605		283	17			150		2		
Ocean No. 1,	Westmoreland,	122,151		122,151	206	179		2	150		18	1	
Ocean No. 2,	Allegheny,	178,008		178,008	175	330			400	3	19		
Ocean No. 4,	Allegheny,	17,173		17,173	33	141			90		9		
Ocean No. 5,	Allegheny,	79,255		79,255	125	135	1		225		11		
Osceola,	Allegheny,	77,182		77,182	152	139			110	2	9		
Pacific,	Allegheny,	80,768		80,768	190	168		1	225		12	1	
Painter & Cornell,	Allegheny,	47,328		47,328	151	198		1	200		6		
Port Royal,	Westmoreland,	104,168	6,947	90,920	221	185	2	4	700	14	23	1	60
Plumer,	Fayette,	105,300	64,320		291	59			450	2	5		
Pennsville,	Fayette,	59,223	45,412		274	85	1		500	3	4		92
Painter,	Fayette,	147,000	97,652		285	196	1	1	480	1	16	1	228
Rainbow,	Fayette,	71,882		71,882	193	108	1		300	2	6		
Rist,	Fayette,	232,000	144,395		282	243			1,200	4	16	1	367
Rising Sun,	Westmoreland,	79,500	52,769		286	114					8		136
Sarah,	Allegheny,	49,407		49,407	167	46			43	1	3		
Scottdale Iron and Steel Co.,	Fayette,	30,765		30,765	232	27			50		6		
Shaners No. 2,	Westmoreland,	67,871		67,871	193	110		1	80	2	12		
Smithton No. 2,	Westmoreland,	60,000		60,000	170	131		1	314	2	9		117
Sterling No. 1,	Fayette,												
Sterling No. 2,	Fayette,												
Summit,	Fayette,	150,150	100,100		279	134			381	1	17		222
Tyrone,	Fayette,	117,208	81,797		310	111		1	300	1	16		141
Tip Top,	Fayette,	52,950	35,300		150	93		1		1	11		121
Union,	Westmoreland,	38,000	25,168		253	46				1	8		70
Valley,	Fayette,	214,500	143,000		284	206	2	1	1,200	4	18	1	251
West Overton,	Westmoreland,	73,043	55,461		306	97	1	1			4		110
West Newton,	Westmoreland,	146,983		146,983	175	203		5	400	9	13		
Wick Haven,	Fayette,	131,947		131,947	192	174			300	4	9		
White,	Fayette,	142,800	95,200		276	140			850	1	14		200
Yough Slope,	Westmoreland,	47,010		45,450	200	135		1	160	3	8		
Total,		5,652,833	1,985,206	2,696,115	14,224	8,557	21	40	14,700	143	623	14	4,781

TABLE No. 3.—*Showing the number of each class of employes at each colliery in the Ninth Bituminous Mine District, during the year 1895.*

Names of Collieries.	Location.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.							
		Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Outside foreman.	Blacksmiths and carpenters.	Engineers and firemen.	Slate pickers.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	Grand total—inside and outside.
Adelaide,	Fayette,	1	130	2	17	16	2	169	.....	5	5	93	26	2	131	300
Amyville,	Westmoreland,	1	100	5	1	7	.....	114	.....	1	.....	.....	6	2	9	123
Boston No. 1,	Allegheny,	1	200	10	9	12	1	233	.....	3	6	.....	10	2	21	254
Boston No. 2,	Allegheny,	1	134	5	4	8	1	153	1	3	3	.....	12	1	20	173
B. & O.,	Fayette,	1	22	.....	3	1	.....	27	.....	.....	1	.....	1	.....	2	29
Banning,	Fayette,	1	168	3	1	15	1	195	1	2	3	.....	9	1	16	211
Belle Bridge,	Allegheny,	1	150	.....	9	6	1	167	1	2	1	.....	8	1	13	180
Big Chief,	Westmoreland,	1	125	12	3	6	2	149	.....	1	1	.....	6	1	9	158
Buckeye,	Westmoreland,	1	58	2	7	7	2	77	.....	2	1	39	9	1	52	129
Bessemer,	Westmoreland,	1	52	1	5	6	2	67	1	3	1	35	7	1	48	115
Coal Brook,	Fayette,	1	40	.....	3	7	.....	51	.....	2	2	36	3	2	45	96
Davidson shaft,	Fayette,	1	78	2	8	10	.....	99	.....	3	9	80	19	2	113	212
Dexter,	Fayette,	1	15	.....	.....	3	.....	19	.....	.....	.....	.....	.....	1	1	20
Donnelly,	Westmoreland,	1	70	.....	5	5	1	82	1	3	5	45	15	1	70	152
Darr,	Westmoreland,	1	200	.....	9	11	3	224	1	2	6	.....	9	1	19	243
Dillworth,	Westmoreland,	1	20	2	.....	2	.....	25	.....	.....	.....	.....	5	.....	5	30
Dravo,	Allegheny,	1	135	7	1	9	2	155	.....	1	.....	.....	7	2	10	165
Diamond,	Fayette,	1	19	.....	1	3	.....	24	.....	.....	.....	17	5	1	23	47
Eureka,	Westmoreland,	1	130	15	4	12	2	164	1	2	1	.....	10	1	15	179
Euclid,	Westmoreland,	1	100	4	1	7	2	115	.....	1	3	8	5	2	19	134
Emma,	Westmoreland,	1	11	.....	2	2	.....	16	.....	.....	.....	7	.....	1	8	24
Franklin,	Fayette,	1	15	2	1	3	.....	22	.....	.....	1	13	1	1	16	38
Fort Hill,	Fayette,	1	150	.....	6	14	1	172	.....	2	3	80	4	1	90	262
Forrest Hill,	Allegheny,	1	180	2	6	16	3	208	1	2	2	.....	14	1	20	228
Grace,	Fayette,	1	105	6	5	14	3	134	1	4	4	150	6	7	172	306
Guffey,	Westmoreland,	1	157	10	6	15	2	191	.....	1	.....	.....	11	.....	12	203
Henry Clay,	Fayette,	1	49	4	9	9	.....	72	.....	1	2	40	6	1	51	123

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Horner & Roberts,	Allegheny,	1	97	8	7	6	2	121		1	1		5	2	9	130
H. D. O'Neil,	Allegheny,	1	70	2	5	5	2	85		1	2		6	1	10	95
Home Works,	Fayette,	1	7			1		9				5		1	6	14
Hazlett,	Westmoreland,		1					1								1
Jackson,	Fayette,	1	21		3	4	1	30		1		13	4	2	20	50
Lynch,	Allegheny,		11			1		12						1	1	13
Mullen,	Westmoreland,	1	34	1	5	3		44		2	2	22	6	2	35	79
Mayfield,	Westmoreland,	1	20		1	2	1	25			1	12	2	1	16	41
Morgan,	Fayette,	1	12		2	2		17								17
Ocean No. 1,	Westmoreland,	1	126	12	10	12	4	165		3	1		9	1	14	179
Ocean No. 2,	Allegheny,	1	258	22	11	20	2	314		2	2		11	1	16	330
Ocean No. 4,	Allegheny,	1	96	10	11	9	1	128		1	3		8	1	13	141
Ocean No. 5,	Allegheny,	1	144	10	6	10	2	173		1			10	1	12	185
Osceola,	Allegheny,	1	105	5	3	9		123	1	2	2		8	3	16	139
Pacific,	Allegheny,	1	130	13	6	7	1	158		2	1		6	1	10	168
Painter & Cornell,	Allegheny,	1	170	6	3	6	1	187		2			7	2	11	198
Port Royal,	Westmoreland,	1	100	8	10	11	8	138	1	2	7	18	16	3	47	185
Plumer,	Fayette,	1	48		2	4		55			2		2		4	59
Pennsville,	Fayette,	1	35		2	3		41		1	4	34	3	2	44	85
Painter,	Fayette,	1	75		11	12	1	100		3		77	14	2	96	196
Rainbow,	Fayette,	1	84		4	5	2	96	1	1	3		5	2	12	108
Rist,	Fayette,	1	80	17	8	13	1	120		2	3	98	18	2	123	243
Rising Sun,	Westmoreland,	1	67		1	6	1	76				35	2	1	38	114
Sarah,	Allegheny,	1	32	3	3	1	1	41		1	1		2	1	5	46
Scottdale Iron and Steel Co.,	Fayette,	1	17		1	3		22	1				3	1	5	27
Shaners No. 2,	Westmoreland,	1	80	4	5	9	2	101		1	2		4	2	9	110
Smithton No. 2,	Westmoreland,	1	87	4	14	7	2	115	1	2	4		8	1	16	131
Sterling No. 1,	Fayette,															
Sterling No. 2,	Fayette,															
Summit,	Fayette,	1	55	2	3	10		71		1		52	8	2	63	134
Tyrone,	Fayette,	1	40	1	12	7	3	64		2	1	42	1	1	47	111
Tip Top,	Fayette,	1	41		4	6	1	53		1		34	4	1	40	93
Union,	Westmoreland,	1	18		2	4	2	27				14	3	2	19	46
Valley,	Fayette,	1	86		8	12	2	109		2	3	74	17	1	97	206
West Overton,	Westmoreland,	1	40	8	2	4		55	1	2		33	2	4	42	97
West Newton,	Westmoreland,	1	152	2	4	16	8	183	1	2	6		10	1	20	203
Wick Haven,	Fayette,	1	145		4	9	1	160		2	3		7	2	14	174
White,	Fayette,	1	55	4	4	9		73		1	1	56	7	2	67	140
Yough Slope,	Westmoreland,	1	100	10	7	6	1	125	1	1	2		5	1	10	135
Total,		61	5,352	246	316	480	85	6,541	17	91	118	1,263	437	91	2,017	8,557

TABLE No. 4.—*List of fatal accidents that occurred in and about the mines of the Ninth Bituminous Mine District, for the year ending December 31, 1895.*

Date of Accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location--County.	Nature and Cause of Accident.
Jan. 9,	John Delmos,	Miner,	23	S.	....	Port Royal,	Westmoreland,	Back broken by falling on rail while running from falling coal; died five days after.
25,	August Afandel,	Miner,	33	M.	....	Franklin,	Fayette,	Killed by roof falling on him while drawing out posts on rib.
29,	Sebastian Eberly,	Miner	58	W.	....	Valley,	Fayette,	Instantly killed by roof falling on him while drawing out posts on rib.
Feb. 13,	George Bell	Driver,	23	M.	2	Port Royal,	Westmoreland,	Burned on face, body and arms by explosive gas while cleaning a fall on No. 11 entry, opposite 28 room; died on 25th.
Mar. 13,	Wm. King,	Miner,	55	M.	5	Belle Bridge,	Allegheny,	Fatally injured by a loaded trip running over him breaking both his legs and crushing him internally; died third day after.
14,	Samuel E. Simpson,	Miner,	24	S.	....	Donnelly,	Westmoreland,	Fatally injured by a shot going off as he approached it, thinking it had gone off before; he died the same day.
27,	William Lazalle,	Driver,	25	S.	....	Davidson shaft,	Fayette,	Fatally injured by being caught between empty trip and rib. He was running fast and was jolted against the rib when the wagon caught him. He died seven days afterward.
29,	Jacob Kough,	Miner,	50	M.	4	Painter,	Fayette,	Instantly killed by a fall of top rock, while digging a stump out behind the break-row with the intention of letting it down.
June 7,	John Arnold,	Driver,	21	S.	....	Henry Clay,	Fayette,	Fatally injured by being caught between his empty trip and the corner of entry rib.

	17.	George Goba,	Miner,	35	M.	2	Darr,	Westmoreland,	Fatally injured by coal and slate falling on his leg, mashing it badly below the knee. Died the same evening.
July	11.	George Deakin,	Miner,	29	S.		Ocean No. 5,	Allegheny,	Instantly killed by a fall of coal and slate.
	19.	Peter Vargo,	Miner,	18	S.		Rainbow,	Fayette,	Instantly killed by a fall of slate.
Aug.	15.	Joe Bolish,	Miner,	32		2	Darr,	Westmoreland,	Fatally injured by coal falling on him while undermining it. Died six days after.
	21.	Samuel Hildebrand,	Miner,	30	W.	1	Eureka,	Westmoreland,	Fatally injured by fall of coal. Died three hours after.
	24.	Joe E. Morris,	Laborer,	19	S.		Buckeye,	Westmoreland,	Instantly killed by larry dumping on him.
Oct	4.	William Inglas,	Miner,	27	M.		Pennsville,	Fayette,	Instantly killed by a fall of top rock on a rib.
	17.	James Bolles,	Miner,	19	S.		Valley,	Fayette,	Instantly killed by a fall of slate at the side of his room, it being open ended.
	19.	Steve Hoen,	Miner,	23	S.		West Overton,	Westmoreland,	Instantly killed by roof fall on a rib which let the whole top down to daylight.
	26.	Edward Swink,	Trapper,	14			Grace,	Fayette,	Killed almost instantly by being caught between the wagon and rib.
Nov.	11.	John Kundish,	Miner,	34	S.		Euclid,	Westmoreland,	Instantly killed by a fall of slate.
Dec.	3.	Henry Breitinger,	Miner,	42	W.	6	Lynch,	Allegheny,	Instantly killed by a fall of roof slate from above the roof coal.

TABLE NO. 5.—*List of non-fatal accidents that occurred in and about the Mines of the Ninth Bituminous Mine District, for the year ending December 31, 1895.*

Date of Accident.	Name of Person.	Occupation.	Age.	Married.	Number of children.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 3,	Thomas W. Morrell,	Miner,	22	M.	....	Forest Hill,	Allegheny	Leg badly cut by wagon.
19,	Joseph Selack,	Miner,	34	S.	....	Port Royal,	Westmoreland,	Leg badly injured by fall of coal.
Feb. 1,	Mike Pougher,	Miner,	24	M.	....	Port Royal,	Westmoreland,	Hand injured by a coal cutting machine.
22,	Samuel Moss,	Miner,	25	S.	....	Painter,	Fayette,	Back hurt and ankle sprained by a fall of slate.
Mar. 7,	Frank Frants,	Miner,	26	....	....	Darr,	Westmoreland,	Side hurt by slate rolling on him.
13,	William Welsh,	Miner,	22	....	....	Donnelly,	Westmoreland,	Arm broken, the elbow being torn away, jaw broken and breast severely injured by a shot going off as he approached it.
25,	W. H. Jackon,	Miner,	34	M.	3	West Overton,	Westmoreland,	Arm broken by a fall of roof.
April 5,	George Rush,	Trapper,	14	....	....	Browns No. 1,	Allegheny,	Leg broken by an empty wagon.
27,	Christ Howels,	Fire boss,	56	M.	3	Port Royal,	Westmoreland,	Arm injured by the crank of a coal cutting machine.
May 10,	John Cruse,	Miner,	18	S.	....	Valley,	Fayette,	Arm and ankle broken by a half loaded wagon running on him while he was loading it.
10,	William Findlay,	Driver,	19	S.	....	Henry Clay,	Fayette,	Leg broken by loaded wagon.
11,	William Hicks,	Miner,	15	S.	....	Boston No. 1,	Allegheny,	Leg broken and badly bruised by a fall of slate.
June 3,	Philip Stevenson,	Miner,	35	M.	....	Forrest Hill,	Allegheny,	Thigh broken by a fall of slate.
13,	John Kistner,	Miner,	32	M.	....	Forrest Hill,	Allegheny,	Leg broken by a fall of coal and slate.
14,	Andy Baxter,	Miner,	32	M.	....	West Newton,	Westmoreland,	Leg broken by a fall of coal and slate.
20,	Thomas Lancaster,	Miner,	46	M.	....	Darr,	Westmoreland,	Burned on hands and face by explosive gas.
July 15,	Andy Galsk,	Miner,	26	S.	....	Moreland slope,	Fayette,	Collar bone broken by loaded wagon.
15,	John McDermott,	Driver,	20	S.	....	Forrest Hill,	Allegheny,	One leg badly bruised by being caught between trips.
16,	William Trotter,	Miner,	60	M.	....	Painter & Cornell,	Allegheny,	Leg broken by a fall of roof coal.
16,	John Simons,	Machine miner,	32	M.	....	H. D. O'Neil,	Allegheny,	Leg nearly cut off below the ankle by coal machine cutter chain.
20,	John Creshotes,	Miner,	30	S.	....	Euclid,	Westmoreland,	Leg broken by a fall of coal.

	26,	Jacob Keller,	Machine miner,	33	M.	West Newton shaft,	Allegheny,	Hand severely crushed by a coal cutting machine.
	29,	Frank Roberts,	Driver,	22	S.	Smithton,	Westmoreland,	Arm broken by being caught by his trip.
	31,	Thomas Fitzgerald,	Driver,	21	S.	West Newton shaft,	Allegheny,	Foot mashed by loaded wagons.
Aug.	1,	Ernest Reams,	Miner,	45	S.	West Newton shaft,	Westmoreland,	Two ribs broken by a fall of slate.
	10,	Roses Pollock,	Miner,	48	M.	West Newton shaft,	Westmoreland,	Foot fractured by a fall of slate.
Sept.	3,	Joe Stilto,	Miner,	27		Darr,	Westmoreland,	Head, body and foot badly bruised by fall of slate.
	16,	John Rist,	Miner,	18	S.	Tyrone,	Fayette,	Foot badly cut by fall of slate.
	16,	Joe Yipco,	Miner,	32	S.	Adelaide,	Fayette,	Leg and foot fractured by a fall of roof.
	24,	Joseph Kovack,	Miner,	27	S.	Ocean No. 1,	Westmoreland,	Leg broken by fall of slate.
	24,	James Conway,	Miner,	24	S.	Banning,	Fayette,	Leg broken by fall of roof.
	25,	Jacob Hess,	Driver,	23	S.	Banning,	Fayette,	Body bruised and head cut by falling between cars and rib.
	28,	Robert H. Whitelaw,	Driver,	25	M.	Banning,	Fayette,	Arm broken by wagon.
Oct.	3,	Frank Gontor,	Miner,	39	M.	Yough slope,	Westmoreland,	Body crushed by a fall of coal.
Nov.	1,	Alex. Shank,	Driver,	28	M.	Tip Top,	Fayette,	Two fingers taken off by loaded wagon.
	2,	Fred. Lovell,	Machine miner,	22	S.	Ocean No. 1,	Westmoreland,	Jaw broken by the bar of machine.
	15,	Frank McFadden,	Miner,	42	M.	Shaners No. 2,	Westmoreland,	Head badly cut and leg injured by a fall of slate.
Dec.	11,	Walter Smart,	Driver,	23	M.	Pacific,	Allegheny,	Leg broken by running up against an empty wagon.
	21,	Philip Specht,	Miner,	19	S.	Henry Clay,	Fayette,	Hip dislocated by a fall of roof.
	30,	Joseph Gora,	Miner,	34	M.	Port Royal,	Westmoreland,	Ear nearly torn off and head badly cut by a fall of slate.

TENTH BITUMINOUS DISTRICT.

(HUNTINGDON, BEDFORD, FULTON AND BLAIR COUNTIES, AND THOSE PARTS OF CLEARFIELD, CAMBRIA AND INDIANA COUNTIES LYING ADJACENT TO THE BELL'S GAP RAILROAD, AND THE PARTS OF CLEARFIELD, CENTRE AND CLINTON COUNTIES, LYING ADJACENT TO THE MAIN LINE OF THE BEECH CREEK RAILROAD.)

Altoona, March 2, 1896.

Hon. James W. Latta, Secretary of Internal Affairs, Harrisburg, Pa.:

Sir: I have the honor herewith to submit the annual report as Inspector of Mines for the Tenth Bituminous District for the year ending December 31, 1895.

The number of mines in the district is 68, and the quantity of coal produced was 2,708,271 tons, the quantity shipped was 2,485,544 tons, the number of persons employed inside and outside was 5,098, the fatal accidents were 5, and the non-fatal accidents 25.

The number of fatal accidents is much greater than that of the preceding year, and on examining into the causes of them, it was found that four of them were attributable to falls of coal and roof, and those killed by falls of coal had neglected in each instance to set sprags while undermining the coal, and in two of the cases the coal had already been loosened by a previous shot, and in the other, there was a slip running through the coal to the roof, while in the case of the man killed by fall of roof, he was negligent even to foolhardiness for he was repeatedly warned by his fellow workmen to come out of the place until the roof had settled, but he told them he knew when it was dangerous, and when to come out. The trapper boy who was killed, had disobeyed orders, and should not have been away from the door he was set to attend, and had no business to follow the driver up the heading.

It is sad to reflect on the above accidents which in every case could have been averted had each one taken the necessary precautions for his safety, and obeyed the rules laid down for his guidance,

for it is only by following out the rules laid down for their guidance that such accidents can be averted, and I do not wish to be considered as censuring the dead, but rather to point out the fact that by attention to the discipline, and the rules laid down for them to follow, these accidents could have been averted. In enforcing these rules, the mine foreman often comes in conflict with the miner, for the foreman will insist on the miner spragging up his coal while undermining, and the miner will very often insist that there is no need of his setting a sprag, for it may be in his way while he is undermining, and for that reason he is willing to run the risk of the coal falling, rather than be inconvenienced by having the sprag in his way for a short time. The same thing occurs when the foreman insists on the miner setting a prop; he will say that it will be in his way while loading his cars, and that when he has finished his day's work, he will then see that the place is propped and made secure, and so he will run the risk of the roof falling rather than be inconvenienced by having a prop in his way, and it is under such circumstances as these that most of the accidents occur.

The condition of the mines was on the whole good during the year, and at some of the mines that are getting in a long distance, and a large area of ground worked out, they are preparing to put in fans to replace the furnaces now in use, as they find that the furnaces will not be able to keep up the required ventilation much longer. I find most of the superintendents are waking up to the fact of the superiority of the fan over the furnace, but it is the cost of a fan as compared with a furnace that seems so great in their eyes, that cannot entertain the idea of a fan at all, but they must sink a shallow shaft, and put in a furnace that will serve their purpose for perhaps a couple of years, and at the end of that time they wonder why they have not as much ventilation at the face of the workings as they had in the first place, but they will try to worry along, and endeavor to increase the capacity of the furnace, and will in the end spend far more money than would have sufficed to have put in a fan that would serve the purpose for many years, and in fact until the mine would be exhausted. I find as some of my colleagues do, that we have the most trouble to have the law complied with at the mines of the small operators, who have to cut everything down so fine, that they cannot spend enough to keep the mine in a satisfactory and healthful condition, and I believe it would be better for all concerned if the mining business was in the hands of large companies, for they can afford to put in machinery for hauling, pumping and ventilation, and by keeping their mines in good condition, the roads in good order, and with plenty of supplies, and a large production, it naturally follows that the operating expenses will be

lighter than at a small mine, with a small production, and at the same time to keep the condition of the mine fully up to the requirements of the mining law.

In this district there are great and striking differences as regards height of vein, nature of roof and floor, and freedom of mining, and at one place we will find a vein running from four to five feet in height of clean coal, with free mining, and not requiring much blasting, and at another we will find the vein running from three to three and a half feet in thickness, and needing considerable blasting. Then we will find mines with a vein running from two and a half to three feet in thickness, with a rock roof and floor, which requires a good deal of shooting, and in these small veins we generally find the airways more or less obstructed by rubbish that has to be taken down to make height for the mine cars, consequently the ventilation is not, as a rule, as good as in those where the vein is large, and the airways of large area. It is very hard for those who operate these low veins to compete in market with those having good high veins, and it is the small operators as a general rule, who are working the small veins.

It will be noted on comparing the summary that there has been a great increase in the production of coal, as compared with the previous year. The number of men employed is somewhat less, but the average number of days worked is greater, so that the earnings of the miner were a little greater than they were in the preceding year. The report is respectfully submitted.

R. HAMPSON,
Inspector.

Summary of Statistics.

	1894.	1895.
Number of mines in the district,	68	68
Number of mines operated during the year,	61	61
Number of tons of coal mined,	1,852,539	2,708,271
Number of tons of coal shipped,	1,800,817	2,485,246
Number of tons of coke produced,	47,786	142,221
Number of persons employed inside,	4,749	4,537
Number of persons employed outside,	498	561
Total, inside and outside,	5,247	5,098
Number of fatal accidents,	2	5
Number of non-fatal accidents,	17	25
Number of tons of coal per fatal accident,	941,265	541,654
Number of tons of coal per non-fatal accident,	110,737	108,330
Number of kegs of powder used,	10,125	17,066
Number of days worked during the year,	6,816	10,074
Average number of days worked during the year,	111⅔	165

DESCRIPTION AND GENERAL CONDITION OF THE MINES IN THE TENTH BITUMINOUS DISTRICT.

Mines on the Beech Creek Railroad.

Cato.—This is a small mine operated by Nugent & Kelly, employing about twenty miners, and they are working a seam of coal running from three to three and a half feet in thickness, with a good slate roof.

A new opening was put in during the year, and this has cut off a very steep haul, and also dispensed with the pumping of water, as it now runs out by gravity. They are in a very good body of coal and the coal lies very favorably for working. The ventilation of the mine is good.

Snow Shoe.—These mines Sugar Camp 1 and 2 and Careytown are owned and operated by the Lehigh Valley Coal Company, but owing to poor trade have worked very little during the year, and the coke oven has not been operated at all. They are expecting to have better trade during the coming year and are erecting a new tipple, also a coal crusher with the necessary machinery for hoisting coal to the pockets, and they hope to make a better quality of coke in the future. No. 1 mine employes quite a number of men, and the vein is a little more than three feet in thickness, and of good quality. On two of my visits I found the ventilation was poor, but on the subsequent visits it was all right. No. 2 mine is nearly all confined to pillar working, and its general condition was good.

Careytown.—Not much work was done here during the year, but the ventilation of the mine was good on my visits.

Kellys.—These are two small mines operated by the Kelly Bros., Snow Shoe. The old mine is nearly worked out, and they are now developing a new property which they have lately leased, and they have cut into an old mine at several points, and as the coal is all brushed, and no powder used, the condition of the mine was good during the year.

Cherry Run.—Operated by Holt & Co., but the mine has worked only part of the year. They have met with considerable difficulty in the way of faults, and are still troubled with them in the cross entries, and they also have difficulty with swamps. They are now opening up a pair of cross entries in a body of coal nearly four feet in thickness, and this part of the mine looks very well. They have graded nearly half a mile of railroad track outside, and will build a new tipple near the mouth of the mine, and this will dispense with a long tramroad. The ventilation of the mine was very fair during the year.

Tunnel.—This is a small operation as they are working out a piece of coal that was left a few years ago. Not more than twenty men are employed at any time, and the ventilation of the mine was fairly good during the year. Operated by King & Bough, Gorton Heights.

Grass Flat.—This is the largest mine operated by the Clearfield Bituminous Coal Corporation, and the work has been very good during the year, as the coke ovens at Gorton Heights are supplied with slack from this mine. The right side of the mine is mostly confined to drawing pillars, and the ventilation of this section of the mine was all right.

On the left side of the mine they have much difficulty with swamps, and the ventilation here was not so good, as they are so far away from the furnace, that it does not seem to have much effect on this part of the mine. At present they are erecting a Brazil fan to supply this mine, and Pleasant Hill, and when this is completed the ventilation of this part of the mine will be much improved, as a direct airway will lead from the fan to the face of the present workings. A new system of laying out the mine will be adopted, and the rope road will also be extended to this point.

Pleasant Hill.—This mine adjoins the Grass Flat mine, and the ventilation and drainage has been very good during the year. They have a good furnace here, and as the mine is not such a great distance in yet, and the splits are very regular, the mine is in very good condition. They are keeping a water level driven along as the work is opened up, and this is a great help in the drainage of the mine, as all the water from the upper headings is carried to the water level, and the main haulage road is thereby kept in good order.

Moravian.—This mine is getting a long distance in, and a new turnout has been made, also a new road to save pulling up a hill. Considerable heading was driven during the year, and the drainage and ventilation of the mine were good.

Knox Run.—A new opening was put in here during the year, and it has saved a long haul. The water course has been pushed along, and is draining the mine nicely. The ventilation was good during the first two visits, and only fair on the other visits, as the workings are getting so far away from the furnace, that it will be necessary in a short time to put in a new shaft for ventilation at some point near the face of the workings.

Somerville.—These mines have not worked very steadily, and the ventilation in No. 4 mine was very poor during the year, and a shaft was put down, but this did not improve the condition any. They are now erecting a Brazil fan, and when it gets in operation I think the ventilation will be all right. They are now working the coal prop-

erty adjoining their lease, and this gives them access to a very favorable piece of coal, and if trade warranted they would be in a position to ship a good tonnage from these mines.

Forest.—No. 1 mine has worked only part of the year, and on my first two visits the ventilation was poor. A shaft has been put down near the face of the work on the right, and a furnace built, but there were a few details needing attention on my last visit before the furnace would work properly, so that the condition, while a little improved, was not fully up to the standard. The condition of the ventilation on the left of the workings was fair. No work has been done in No. 2 mine, but they are hoping to start in a short time. They have considerable trouble with faults in these mines, and this makes the successful working of them a rather difficult matter.

Kyler.—This mine had just started up on my last visit, and they had a few more than twenty men at work, and were getting the mine in shape after a long shut down, and as they have a very good furnace it will not take them many days to get the ventilation in good condition.

Douglas Slope.—The general condition of this mine was good during the year. They have a good furnace sufficient for the number of men employed, and everything is well looked after.

Harts.—This mine has only been working on country trade, and at no time during the year was there a sufficient number of men to bring it under the provisions of the mine law.

Royal Slope.—This mine has worked only intermittently during the year, but they are looking for better times this winter. A great deal of work has been opened up, and the mine is now in condition for a good production. The drainage and the ventilation were good at each visit during theyear, and those in charge are keeping the mine in good order.

O'Shanter.—These mines have worked very fair during the year, and have opened up a great deal of work. No. 1 mine is now working a narrow strip of coal, and the headings on each side of the main heading do not go very far before striking the outcrop. In No. 2 mine they have encountered a dip that has retarded them somewhat. The ventilation of both mines was good.

Bloomington.—Work has been very irregular at these mines during the year, and in No. 1 mine there has been quite a change in the condition of the headings in the dip, as the fan erected at the latter part of last year is now doing very good work, and the ventilation in this portion of the mine is good. In the headings in the upper part of the mine the condition was not so good, and as the headings have a long distance to go, it will be necessary to put down a shaft,

and build a furnace before the ventilation can be improved very much.

In No. 4 mine the main and cross headings have been pushed right along and a good body of coal is now opened up. The ventilation and drainage was very good.

Gazzam.—These mines worked very steadily during the year, and a great deal of new work has been opened up in No. 1 mine. The south heading which had been abandoned on account of going to the dip has been started again, and a ditch of more than seven hundred feet long has been cut, and three hundred feet of roof blasted down, filling up a swamp, and also liberating the water, and making a good hauling road. It has also opened up the best body of coal they have ever had in this mine. The workings on the north side have also been pushed along, and a great deal of ground opened up. The ventilation of the mine was fair during the year, but the workings are getting a long distance away from the furnace, and some other ventilating power will be needed before very long, as there is an immense body of coal tributary to this opening.

No. 4 mine has employed about forty men during the year, and a great deal of heading work was done, and a good body of coal opened up. There were two very steep hills up which the coal had to be hauled, and these have been cut off by blasting down four hundred feet of roof, and making a cross heading through a portion of the old workings, and now they have a good haulage road. The ventilation of the mine was fair.

Mines on the Glen Campbell Branch of the Pennsylvania Railroad.

Glenwood.—No. 1 mine has worked very well during the year, and considerable heading work was done, and a shaft has been put down near the face of workings on the top of the hill, which has considerably improved the ventilation of this part of the mine. The lower part of the mine was in good condition during the year. A new opening is to be put in during the coming spring, which will cut off all the hill workings, and be of great advantage to them.

No. 2 Glenwood was idle a good part of the year, but on my last two visits they were working a good force of men, and expect to work right along now. The ventilation in one of the headings was very poor as the men were crowded into the rooms, and rooms were turned off without much system, and an excessive amount of blasting is being done. The condition of the rest of the mine was very fair. A new opening has been put in from the outside, which will serve as a fanway, and a new fan is to be erected very shortly. When this is done, by a little attention to details this can be made a first class mine for ventilation, as the headings and airways are of large area and the vein lies very favorably for working.

Penn.—Most of the work in this mine has been pillar work, but now they are endeavoring to get into a body of coal lying on the upper part of the property, which will help them out for a while longer.

The heading to the dip has opened up a good body of coal, and is still being pushed on. The ventilation and drainage was good during the year.

Urey.—These mines have worked fairly well during the year, and in No. 1 mine they have opened up, and are preparing to work the upper seam which at this point lies about fifteen feet above the lower one. The ventilation and drainage of the mine was good. In No. 3 mine the general condition was very good, and everything was well attended to. They have prospected some on the upper seam at this point, and will probably open this up as soon as trade will warrant.

Cush Creek.—This mine has done nothing during the year, as they could not get through a fault which lay in front of the work.

Mines on the Pennsylvania and Northwestern Railroad.

National.—Considerable work has been done at this mine during the year, as they have been driving a main heading on the lower part of the property and along the outcrop, which will enable them to turn their cross headings up the hill, and also give them access to a body of coal now lying under water. In the upper part of the mine they are pushing along the main heading so as to intersect with an opening which was put in years ago; when this is accomplished it will improve this part of the mine, which on my last visit was in poor condition. The other parts of the mine were well ventilated, and the drainage was good.

Irvona.—A little work was done in No. 2 mine during the first part of the year, and it was then abandoned owing to the faults which were met with. No. 2 mine has not been worked at all during the year. No. 3 is a new mine which was opened up this year, and the coal is low but of good quality. They are now developing this mine as fast as possible, and on my last visit they had struck a dip in the main heading, and had more or less difficulty with it. The ventilation on my first visit was good, but on my second visit it was not very good, as they had a temporary furnace in use, but were making preparations to put in a good one.

Oakland.—About fourteen miners were employed here, and the condition of the mine was very poor on my first visit, and the owners put in, after considerable urging on my part, a small temporary furnace, that at present answers the purpose, but will have to be replaced by a properly constructed one in the near future.

Mountaindale.—Very little work was done here during the year,

owing to some difficulty, and considerable time also was lost on account of their running out of water for steam purposes and for coke ovens. The first right heading went to the dip and was abandoned, and now they are pushing the others, and are near the property line, and will soon have to open one of their other mines if they wish to keep up the supply of coal for their ovens. The ventilation of the mine was good during the year.

Eldorado.—This mine passed into new hands during the year, and considerable new work has been done, and a heading going to the dip has been pushed along. A water course has been started from the outside to intersect with this new dip heading, and this will open up a very good piece of coal for them. The most of the work adjoining the Great Bend workings is finished, and this will enable them to confine the air current better, and they will not have so much difficulty with black-damp as they have heretofore had. They are also pushing one of their headings toward the outside so as to get another inlet for the air current.

Great Bend.—The condition of this mine as regards ventilation was better than last year, but is not so good as I would like to see it. They have a very hard mine to work owing to the dips and the roof, which is very poor. The main heading on my last visit seemed to be showing up better, and they were getting up on rising ground, and the prospects seemed brighter for a better piece of coal, and the roof also seemed to be getting better.

Fricks.—The condition of the old mine was good as regards ventilation during the year, but there was no improvement in the condition of the roof which was very bad and dangerous, and needed constant watching on the part of the mine boss. The new mine commenced shipping coal during the autumn, and the conditions here as regards roof seem to be nearly the same as in the old mine. The double heading system is used and a good shaft for ventilation has been sunk, and the mine was in very good condition on my last visit. This mine will not be so hard to work as the old one, as the cross headings go to the rise, and the drainage is very good.

Blands.—A great deal of work has been done during the year in driving headings as they are in a good body of coal which will average four feet in thickness, and the mine is now looking very promising. The ventilation was good during the year, and the general condition of the mine excellent.

Mines on the Pennsylvania Railroad.

East End.—The work has been pushed right along at this mine during the year. A new lift has been sunk, and headings turned off, and a heading is being pushed on, so as to cut into the Mitchel slope at Gallitzin for drainage purposes. The ventilation on my first visit

was not very good as there had been a fall in the airway, but this was cleaned up, and the ventilation was improved on my subsequent visits. They have much difficulty with clay veins which makes it hard to get the cross cuts in the rooms in regular order. In the upper headings they have had considerable trouble with bad roof, but now it seems to be getting better.

Lemon.—This mine was started up during the fall, and considerable work was required to clean up the mine and get it in condition for work. The headings are a long distance in, and the air current was weak at the face of the upper heading, so that it will be necessary to put down a shaft and build a furnace near the face of the work.

Delaney.—No. 1 mine is still confined to pillar work, and is working coal next the outcrop, and as the headings are a long distance in, it will last a long time yet. A new furnace was built near the upper part of the mine, which improved the ventilation very much. A new furnace was also built near the lower end of the mine, and this part of the mine was benefited. In No. 3 mine the main heading was stopped after going a long distance in low coal, but now they are driving a heading around the back of the fault and expect to get into a body of coal that was left to the dip of No. 1 mine. The ventilation in this part of the mine was not very good. A new mine, No. 3, has been opened during the year, and a shaft sunk, and they have graded the rope road to the new opening, and expect in the spring to have a good force of men at work.

Horse Shoe.—This is a new opening on the Miller seam, and they have had considerable difficulty with it so far, as the coal lies so very irregularly. A very steep pitch was met with in the main heading which was abandoned, and now they are endeavoring to get around the pitch with a heading on the left, also one on the right. The ventilation was good during the year.

Glen White.—They have done quite an amount of work in opening headings, and are pushing the slope into a new body of coal they have lately purchased, and as they are working the Amsbry mine which is to the dip of them, they are now driving the slope in that direction for drainage. This will take them some time, but will be of immense benefit when completed, for it will dispense with the large pumps they now have to use in the slope. The ventilation and drainage of the mine were good during the year.

Bradley.—The condition of this mine was a little better than during the preceding year, but it was only after repeated urging, that they changed their method of working, and they are now getting the mine in better condition. If those in charge would only exercise a little care, they could soon have a first class mine.

Porters.—They have done very little work here during the year, and the ventilation of the mine was not good. They will soon have to open up some new work, as the mine is nearly finished.

Tipton.—Very little work has been done here during the year, and on the visits I made, I found the mine in a very fair condition. There was very little heading work done, and the little vein near the mouth of tunnel had not developed much.

Dougherty.—The number of men employed here average twenty, and the coal is sold in Altoona for domestic use, and as they have no outlet on any railroad for their coal, the production is very limited.

They have put in a new opening on an upper seam, and made a second opening to their No. 1 mine. The general condition of the mine was very fair during the year.

Mines in the Broad Top Region.

Cambria.—There was very little work done here during the year; on some of my visits the number of men being less than twenty, but on my last visit they were going to increase the number of men, as they were in hopes of a good winter's work. The headings were not driven much, and most of them were standing at a roll, and this will have to be cut before much work can be opened up. The ventilation and drainage were good during the year.

Cumberland.—Trade was very good at this mine, and they have opened a great deal of work, and have cut across the basin at two different points, and the coal looks very well. They have much difficulty in the neighborhood of the basin with a very poor roof, also with water, and much care has to be exercised to keep the workings safe. The ventilation and drainage of the mine were good.

Crescent.—The work at this mine was not very promising and the headings have not been developed very much. The ventilation and drainage on the whole were good. In the Chevington mine the ventilation was not good, but on my last visit they were putting down an air shaft on the top of the hill, which will make a decided improvement in the ventilation. The roof in this mine is very poor and needs a great deal of timber, and constant watchfulness on the part of those in charge.

New Hampshire.—About twenty miners are employed here, and the ventilation was poor, but they are striving to improve the condition as fast as possible, and as they do not work very steadily it will take them some time before they get the mine in good condition. They are driving an opening to the outside so as to make a

better haulage road, as at present they have to pull out of a dip, and the new road will be comparatively level.

Cunard.—The ventilation of this mine was good during the year. The new self acting plane is giving satisfaction, as it saves the mules from pulling up a very steep pitch. They are about to put down a slope near the foot of the shaft so as to get into the basin, and this will give them access to a considerable quantity of coal close to the shaft.

The upper vein was worked part of the year, and the condition of the ventilation and drainage were good.

Harvey Slope.—This mine has not worked very much during the year, and the condition both for ventilation and drainage was poor, as they have had considerable difficulty with rolls, pitches and water, and they have thus far, on the score of economy, made no effort to make a lodgment for the water at the foot of the slope, so that when the pump breaks down the result is that the mine must stand idle. The management has promised to improve the condition of the ventilation, and I hope to see a fan put in during the winter, as this is the only thing to permanently improve the ventilation of the mine.

Delta.—There has been very little work done here, as the slope has been abandoned, and they are now at work making an entirely new road which will be nearly level, and will strike the face of the workings at the point where the main heading is now standing, so there will be very little coal shipped until the coming spring.

Elmira.—This mine has done very little during the year. Sometimes they would have six men employed, sometimes as many as fourteen, and only recently they have put on a mine foreman. The ventilation was poor, and is dependent on natural means.

Finley.—The ventilation of this mine was not good, as they have no proper return to the air shaft, but they are now pushing an airway as fast as possible, and when the connection is once made, the condition will be much better. They have a good furnace shaft, and have promised to see to it that a fire is kept burning, and if this is well attended to there will not be much room for complaint.

Mt. Equity.—This mine works the most steadily of any mine in the region, as the coal goes to the furnace at Riddlesburg, and is coked.

The ventilation of the mine on my first three visits was very good, but on my last visit it was not so good, as the rooms and the headings were all going to the dip, and the mine could not be kept in a proper condition owing to the difficulties in the way of dips and rolls, and they were endeavoring to get out the coal as well as they could. In the spring this will be abandoned, as they are now cleaning up the Brown property adjoining, and as soon as this is ready the miners will be transferred to the new work.

Kearney.—Very little work was done here during the early part of the year, but now they are working well and making great improvements. The ventilation of the mine was fair.

A coal crushed with the necessary elevators, and a pocket to hold one hundred tons of coal has been built. Twenty coke ovens were also built. They are also putting in an electric haulage and coal cutting plant, consisting of one 100 K. W. dynamo, one 35 horse power motor, and one McEwen engine with 15 by 16 inch cylinder; also three coal cutting machines. There have been also two one hundred horse power boilers erected, also a twelve foot fan. They have also relaid the main haulage road with thirty pound iron in place of twelve pound, and they will soon have a first class equipment ready for running.

Benedict.—The condition of this mine was very fair during the year. They have a very bad roof that needs constant watching, and they have had a squeeze in a few of the rooms. They have not done much work in the new opening, and only a few miners are at work in it.

Huntingdon.—In the new mine considerable work has been done and a great deal of heading work opened up, and the mine is worked with some system as compared with the other mines on this run. The ventilation on my first two visits was good, but on the other visits was only fair, as they had a squeeze which had injured the air course, but they are expecting in a short time to cut into one of the old mines lying above, and this will improve this part. The old part of the mine was in very fair condition.

Ocean.—This mine has worked very steadily during the year, and the ventilation was very fair. They have had trouble with the steep pitches they have met, but on my last visit the mine was in more favorable condition. They are pushing the lower heading along as fast as possible, and this will shorten the length of the airway, and improve the condition a little.

Carbon.—This is a new operation, and the new opening that was put in, soon struck a roll that has retarded the development of this part, and to keep up the shipments while testing the roll, they opened out an old drift and are in a good body of coal, and they hope to get around the roll from this opening. The ventilation and drainage were good.

Fisher.—An average of twenty men were employed here during the year, and they have met with a big roll and this has shut them off from developing the mine in the main heading. As the rooms from the cross heading strike the roll, it flattens out and they hope to be able to get over it from some of the rooms. A new airway has been made to the furnace, and the foot of the shaft enlarged, and the ventilation was very fair.

Robertsdale.—A great deal of work has been done here in the way of making drains, and a big rock cut has been made in the line of the slope, and now they are turning off cross headings. This will soon open up a big body of very accessible coal of good height, and when this is opened out it will save them a very long haul. The ventilation of the right hand workings was good, and on the left was in very fair condition.

Woodvale.—The work here was very irregular, and they had to shut down for a while on account of having no water for the boilers. They have much difficulty with swamps in this mine, necessitating the use of pumps so that the condition of the headings is not good, as they are more or less in water all the time. They are now having difficulty with a very big roll in one of the headings, and they are trying to get over it. On my first visit the ventilation was not good, as there was such an excessive amount of shooting, and the current was not sufficient to carry away the smoke as fast as it was made. On my subsequent visits the airway had been shortened, and there was not so much shooting, so the condition of the mine was good.

TABLE No. 1.—*Showing location, &c., of collieries in the Tenth Bituminous Mine District.*

Name of Colliery.	Name of Operator.	Location--County.	Name of Superintendent.	Post Office Address.
Blands,	Fred Bland,	Cambria,	Fred Bland,	Figart.
Bennington,	J. L. Mitchel & Co.,	Blair,	J. King Henry,	Bennington.
Bradleys,	Bradley & Meagher,	Blair,	Thomas Bradley,	Gallitzen.
Bloomington Nos. 1, 2 & 3,	Bloomington Mining Company,	Clearfield,	Alex. Dunsmore,	Glen Richey.
Benedict,	W. S. Reed;	Huntingdon,	W. W. Reed,	Dudley.
Cato,	Kelly & Nugent,	Centre,	L. Nugent,	Clarence.
Carbon,	W. H. Sweet,	Huntingdon,	W. H. Sweet,	Axton.
Cambria Nos. 1, 2 and 3,	United Colliery Company,	Bedford,	James Denithorne,	Huntingdon.
Careytown,	Lehigh Valley Coal Company,	Centre,	J. F. Marsteller,	Snow Shoe.
Cherry Run,	Holt & Co.,	Centre,	W. A. Holt,	Philipsburg.
Cumberland,	H. & B. T. M. R. R. Co.,	Bedford,	John Langdon,	Hopewell.
Crescent,	Crescent Coal Mining Compnay,	Bedford,	John Langdon,	Hopewell.
Chevington,	Crescent Coal Mining Compnay,	Bedford,	John Langdon,	Hopewell.
Cunard,	Morrisdale Coal Company,	Bedford,	H. F. Chaney,	Six Mile Run.
Delancy,	Altoona Coal and Coke Company,	Blair,	John Munro,	Coupon.
Delta,	Delta Coal Mining Company,	Bedford,	W. H. Sweet,	Saxton.
Douglas slope,	Allen Somerville,	Clearfield,	Allen Somerville,	Winburne.
Dougherty,	Dougherty Coal Company,	Blair,	John H. Dougherty,	Altoona.
East End,	East End Coal Company,	Blair,	J. King Henry,	Bennington.
Eagle,	John Gwin & Son,	Cambria,	Luther Given,	Mountaindale.
Eldorado,	Mountaindale Collieries Company,	Cambria,	F. H. Seeley,	Altoona.
Elmira,	Fluke Mining Company,	Bedford,	David Fluke,	Six Mile Run.
Eureka,	Whiteland Coal Mining Company,	Bedford,	John Whitehead,	Huntingdon.
Forest Nos. 1 and 2,	O. P. Jones & Co.,	Clearfield,	John Hooten,	Munson.
Fisher,	E. Eichelbereger & Co.,	Huntingdon,	John Griffith,	Broad Top City.
Finley,	Lambirth Coal Mining Company,	Bedford,	G. W. McIntyre,	Six Mile Run.
Fricks,	Max Frick,	Cambria,	Max Frick,	Figart.
Grass Flat,	Clearfield Bituminous Coal Corporation,	Clearfield,	R. A. Shillingford,	Peale.
Gazzam Nos. 1, 2 and 3,	Clearfield Bituminous Coal Corporation,	Clearfield,	R. A. Shillingford,	Peale.
Glen White,	Glen White Coal Company,	Blair,	Val. Eichenlaub,	Amsbry.
Great Bend,	Great Bend Coal Company,	Cambria,	John Cann,	Figart.
Glenwood Nos. 1, 2 and 3,	Glenwood Coal Company,	Indiana,	Arthur Riddle,	Glen Campbell.
Horseshoe,	Altoona Coal and Coke Company,	Blair,	John Munro,	Coupon.
Harvey slope,	Harvey Mining Company,	Bedford,	W. D. Shaw,	Six Mile Run.
Harts,	Thomas Hart,	Clearfield,	Thomas Hart,	Munson.
Huntingdon Nos. 1 and 2,	W. H. Sweet,	Huntingdon,	W. H. Sweet,	Saxton.
Hickes,	A. F. & G. H. Hickes,	Huntingdon,	A. F. Hickes,	Coalmont.
Irvona Nos. 1 and 2,	Irvona Coal and Coke Company,	Clearfield,	Archie Bathgate,	Coalport.
Kecks,	Keck Coal Company,	Clearfield,	J. S. Overley,	Woodland.
Kearney,	Joseph Thropp,	Bedford,	T. A. Jones,	Kearney.
Kellys,	Kelly Bros.,	Centre,	M. D. Kelly,	Snow Shoe.
Knox Run,	Clearfield Bituminous Coal Corporation	Clearfield,	R. A. Shillingford,	Peale.
Kyler,	R. G. Fishburn,	Clearfield,	R. G. Fishburn,	Munson.
Lemon,	East End Coal Company,	Blair,	J. King Henry,	Bennington.

TABLE NO. 1.—*Continued.*

Name of Colliery.	Name of Operator.	Location--County.	Name of Superintendent.	Post Office Address.
Mountaindale,	Bear Ridge Coal and Coke Company,	Cambria,	Joseph Smittle,	Glasgow.
Moravian,	Clearfield Bituminous Coal Corporation,	Clearfield,	R. A. Shillingford,	Peale.
Mt. Equity,	Kemble Iron Company,	Bedford,	William Landis,	Riddlesburg.
National,	Philadelphia Coal and Coke Company,	Clearfield,	W. H. Hilman,	Irvona.
New Hampshire,	Whitehead Coal Mining Company,	Bedford,	John Whitehead,	Huntingdon.
O'Shanter Nos. 1 and 2,	Weaver & Ettla,	Clearfield,	W. H. McDowell,	O'Shanter.
Oakland,	Hegerty Bros.,	Clearfield,	W. Hegerty,	Coalport.
Ocean,	W. H. Sweet,	Huntingdon,	W. H. Sweet,	Saxton.
Penn,	Reakirt Bros. & Co.,	Indiana,	W. J. Trevisick,	Glen Campbell.
Porter shaft,	C. H. Porter & Co.,	Blair,	C. H. Porter,	Hollidaysburg.
Pleasant Hill,	Clearfield Bituminous Coal Corporation,	Clearfield,	R. A. Shillingford,	Peale.
Royal slope,	O. P. Jones & Co.,	Clearfield,	John Morris,	Munson.
Robertsdale,	Rockhill Iron Company,	Huntingdon,	Peter Connor,	Robertsdale.
Somerville Nos. 1 and 2,	Somerville & Buchanan,	Clearfield,	John Somerville,	Winburne.
Sugar Camp Nos. 1, 2 & 3,	Lehigh Valley Coal Company,	Centre,	J. F. Mantellar,	Snow Shoe.
Tipton,	Evans-Bell Mining Company,	Blair,	John Bell,	Tipton.
Urey Nos. 1, 2 and 3,	Urey Ridge Coal Company,	Indiana,	Thomas Bellis,	Urey.
Woodvale shaft,	Rockhill Iron Company,	Huntingdon,	Peter Connor,	Robertsdale.

Table No. 2.—*Gives the total number of tons of coal mined and shipped and tons of coke produced in each colliery, number of days worked, number of employes, number of persons killed and injured, number of kegs of powder used, etc., in the Tenth Bituminous District for the year ending December 31, 1895.*

Names of Collieries.	Location.	Total production in tons of coal.	Total production in tons of of coke.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non-fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Number coke ovens.
Blands,	Cambria,	32,245	.....	32,245	310	35	1	.....	280	.....	4	.....	.....
Bennington,	Blair,	3,773	.....	3,700	45	33	.....	.....	.....	1	10	.....	.....
Bradley,	Blair,	15,481	.....	15,481	200	38	.....	.....	8	.....	8	.....	.....
Bloomington Nos. 1, 2 and 3,	Clearfield,	185,250	.....	185,250	160	265	.....	.....	950	1	19	.....	.....
Benedict,	Huntingdon,	30,000	.....	30,000	211	60	.....	.....	150	.....	4	.....	.....
Cato,	Centre,	6,000	.....	6,000	190	26	.....	.....	38	.....	3	.....	.....
Carbon,	Huntingdon,	2,796	.....	2,796	60	22	.....	.....	20	.....	1	.....	.....
Cambria Nos. 1, 2 and 3,	Bedford,	43,951	.....	43,951	115	97	.....	.....	75	3	9	.....	.....
Careytown,	Centre,	9,716	.....	9,716	205	14	.....	1	.....	.....	2	.....	.....
Cherry Run,	Centre,	22,551	.....	22,551	155	49	.....	.....	.....	.....	6	.....	.....
Cumberland,	Bedford,	62,995	.....	62,995	194	99	.....	4	135	2	12	.....	.....
Crescent,	Bedford,	73,299	.....	73,299	175	145	.....	3	.....	2	15	.....	.....
Cunard,	Bedford,	24,900	.....	24,347	194	61	.....	.....	100	2	19	.....	18
Delta,	Bedford,	28,562	.....	28,573	110	30	.....	.....	30	1	5	.....	.....
Delaney,	Blair,	137,110	.....	133,000	280	201	.....	.....	750	2	20	.....	.....
Douglas slope,	Clearfield,	17,458	.....	17,130	170	28	.....	.....	.....	1	1	.....	.....
Dougherty,	Blair,	13,385	.....	13,385	195	20	.....	.....	125	.....	2	.....	.....
East End,	Blair,	88,072	4,082	79,050	280	146	.....	.....	550	2	12	.....	.....
Eagle,	Cambria,	2,165	.....	2,165	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eldorado,	Cambria,	12,512	.....	12,512	136	65	.....	.....	131	.....	4	.....	.....
Elmira,	Bedford,	5,209	.....	5,209	109	21	.....	.....	91	.....	1	.....	.....
Eureka,	Bedford,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Forest Nos. 1 and 2,	Clearfield,	62,890	.....	62,250	159	116	.....	.....	500	.....	12	.....	.....
Fisher,	Huntingdon,	11,568	.....	11,414	150	36	.....	.....	100	.....	4	.....	.....
Finley,	Bedford,	13,320	.....	13,320	.....	70	.....	.....	130	.....	4	.....	.....
Fricks,	Cambria,	34,741	.....	34,741	298	43	.....	2	480	.....	4	.....	.....

TABLE No. 2.—*Continued.*

Names of Collieries.	Location.	Total production in tons of coal.	Total production in tons of coke.	Total shipment in tons of coal.	Number days worked.	Number persons employed.	Number fatal accidents.	Number non fatal accidents.	Number kegs powder used.	Number steam boilers.	Number horses and mules.	Number mine locomotives.	Number coke ovens.
Grass Flat,	Clearfield,	133,266	41,935	72,266	260	199	1	.....	800	2	10	.....	100
Gazzam Nos. 1, 2 and 3,	Clearfield,	152,661	.....	152,661	274	256	.....	1	1,958	2	19	.....	.....
Glen White,	Blair,	60,416	17,448	33,416	200	145	.....	.....	200	4	9	.....	98
Great Bend,	Cambria,	20,000	.....	20,000	230	35	.....	.....	200	.....	3	.....	.....
Glenwood Nos. 1, 2 and 3,	Indiana,	201,648	.....	201,648	166	281	1	.....	1,256	1	20	.....	.....
Horse Shoe,	Blair,	7,339	.....	7,089	120	25	.....	.....	50	.....	2	.....	.....
Harvey Slope,	Bedford,	38,751	.....	38,751	210	100	.....	.....	.....	1	.....	.....	.....
Harts,	Clearfield,	790	.....	790	.....	.....	.....	.....	.....	.....	.....	.....	.....
Huntingdon Nos. 1 and 2,	Huntingdon,	48,941	.....	48,800	200	68	.....	.....	150	.....	6	.....	.....
Hickes,	Huntingdon,	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Irvona Nos. 1 and 2,	Clearfield,	7,500	1,000	6,000	150	33	.....	.....	80	2	8	.....	80
Kecks,	Clearfield,	2,700	.....	2,700	99	10	.....	.....	.....	.....	2	.....	.....
Kearney,	Bedford,	62,508	40,420	1,676	230	140	.....	1	150	1	9	.....	132
Kellys,	Centre,	13,473	.....	13,231	126	15	.....	.....	.....	.....	2	.....	.....
Knox Run,	Clearfield,	53,315	.....	53,315	184	90	.....	.....	500	.....	3	.....	.....
Kyler,	Clearfield,	14,036	2,111	10,481	112	39	.....	.....	116	1	6	.....	50
Lemon,	Blair,	12,499	7,170	300	63	95	.....	.....	150	.....	15	.....	100
Mountaindale,	Cambria,	19,665	8,055	6,159	217	59	.....	.....	40	1	3	.....	50
Moravian,	Clearfield,	62,969	.....	62,969	180	98	.....	2	500	.....	6	.....	.....
Mt. Equity,	Bedford,	68,076	.....	68,076	309	83	.....	.....	300	.....	16	.....	.....
National,	Clearfield,	50,309	20,000	23,500	290	162	.....	.....	300	.....	10	.....	100
New Hampshire,	Bedford,	9,133	.....	9,133	182	36	.....	.....	.....	.....	5	.....	.....
O'Snanter Nos. 1 and 2,	Clearfield,	45,162	.....	45,162	.....	89	.....	.....	400	.....	8	.....	.....
Oakland,	Clearfield,	6,851	.....	6,851	163	17	.....	.....	68	.....	1	.....	.....
Ocean,	Huntingdon,	30,581	.....	30,400	200	58	.....	.....	200	.....	5	.....	.....
Penn,	Indiana,	49,794	.....	49,794	104	70	.....	.....	350	.....	9	.....	.....
Pleasant Hill,	Clearfield,	64,861	.....	64,861	176	111	.....	.....	600	.....	6	.....	.....
Porter shaft,	Blair,	10,757	.....	10,602	112	54	.....	.....	10	2	12	.....	.....
Royal slope,	Clearfield,	51,260	.....	50,775	221	95	.....	.....	300	2	6	.....	.....
Robertsdale,	Huntingdon,	166,106	.....	166,106	256	251	1	4	1,198	11	34	.....	.....
Somerville Nos. 1 and 2,	Clearfield,	103,684	.....	103,684	143	184	.....	.....	975	.....	13	.....	.....
Sugar Camp Nos. 1, 2 and 3,	Centre,	50,230	.....	50,230	70	162	.....	1	.....	.....	14	1	200

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TABLE NO. 3.—*Showing the number of each class of employes at each colliery in the Tenth Bituminous Mine District during the year 1895.*

Names of Collieries.	Location.	Occupations of Persons Employed Inside.							Occupations of Persons Employed Outside.				
		Inside foreman or mine boss.	Miners.	Miners' laborers.	All company men.	Drivers and runners.	Doorboys and helpers.	Total inside.	Blacksmiths and carpenters.	All company men.	Superintendent, bookkeepers and clerks.	Total outside.	Grand total—inside and outside.
Blands,	Cambria,	1	21	4	1	4	1	32	1	1	1	3	35
Bennington,	Blair,	1	18	4	2	4	1	30	1	1	1	3	33
Bradley,	Blair,	1	24	5	1		1	32	1	1	1	3	38
Bloomington Nos. 1, 2 and 3,	Clearfield,	2	228		4	12	5	250	2	11	2	15	265
Benedict,	Huntingdon,	1	44	6		3		54	1	3	2	6	60
Cato,	Centre,	1	17		2	1		21	1	3	1	5	26
Carbon,	Huntingdon,	1	17			3		21	1			1	
Cambria,	Bedford,	1	79	5	2	10	3	90	2	3	2	7	97
Careytown,	Centre,	1	10	1		3		14					14
Cherry Run,	Centre,	1	39			4	1	45	1	2	1	4	49
Cumberland,	Bedford,	1	57	5	2	8	5	88	1	8	2	11	99
Crescent,	Bedford,	1	104	20	3	14	5	133	2	8	2	12	145
Cunard,	Bedford,	1	39	3	2	7		52	1	5	3	9	61
Delta,	Bedford,	1	27					28		2		2	30
Delaney,	Blair,	1	149	15	3	17	6	191	3	5	2	10	201
Douglas slope,	Clearfield,	1	17	3	1	1	1	24	1	2	1	4	28
Dougherty,	Blair,	1	15			2		18		1	1	2	20
East End,	Blair,	1	100	19	3	4		127	2	15	2	19	146
Eagle,	Cambria,												
Eldorado,	Cambria,	1	53		3	4		61		2	2	4	65
Elmira,	Bedford,	1	17	1			1	20		1		1	21
Eureka,	Bedford,												
Forest Nos. 1 and 2,	Clearfield,	2	89	15	1	5	7	112	1	2	1	4	116
Fisher,	Huntingdon,	1	26	5		3		35			1	1	36
Findley,	Bedford,	1	34	4	1	4	2	46	1	1	2	4	50
Fricks,	Cambria,	1	32	2	1	3	1	41	1	1		2	43
Grass Flat,	Clearfield,	1	139	19	10	11	5	185	2	12		14	199

Gazzam Nos. 1, 2 and 3,	Clearfield,	2	195	6	10	12	7	232	4	18	2	24	256
Glen White,	Blair,	1	74	2	2	8	3	92	3	45	3	53	145
Great Bend,	Cambria,	1	24	2	1	3	1	32	1	1	1	3	35
Glenwood Nos. 1, 2 and 3,	Indiana,	2	236	21	3	13	1	266	2	8	4	15	281
Horse Shoe,	Blair,	2	19		2	1		23	1	1		2	25
Harvey slope,	Bedford,	1	84		4	6	21	96	1	2	1	4	100
Harts,	Clearfield,												
Huntingdon Nos. 1 and 2,	Huntingdon,	1	71	8		7		66	1		1	2	68
Hickes,	Huntingdon,												
Irvona Nos. 1 and 2,	Clearfield,	1	17	3	1	2		24	1	7	1	9	33
Kecks,	Clearfield,		8			1		9			1	1	10
Kearney,	Bedford,	1	74	10	8	6		99	1	38	2	41	140
Kellys,	Centre,	1	10	2	1	1		15					15
Knox Run,	Clearfield,	1	74	4	1	3	2	85	1	4		5	90
Kyler,	Clearfield,	1	18	2	1	3	1	25		13	1	14	39
Lemon,	Blair,	1	36	7	2	3		59	2	32	2	36	95
Mountaindale,	Cambria,	1	37			3		41	1	15	2	18	59
Moravian,	Clearfield,	1	79	2	3	3	2	89	1	3		6	98
Mt. Equity,	Bedford,	1	46	7	8	9	3	73	2	8		10	83
National,	Clearfield,	1	79	10	2	7	1	98	2	60	2	64	162
New Hampshire,	Bedford,	1	29			3		33		1	2	3	36
O'Shanter Nos. 1 and 2,	Clearfield,	1	59	6	8	6	1	79	1	8	1	10	89
Oakland,	Clearfield,	1	11		1	1		14	1	1	1	3	17
Ocean,	Huntingdon,	1	38	13		4		56	1		1	2	58
Penn,	Indiana,	1	57	2	1	6		66	1	2	1	4	70
Pleasant Hill,	Clearfield,	1	89	7	1	4	2	104	1	6		7	111
Porter shaft,	Blair,	1	27	3	2	10	4	47	1	5	1	7	54
Royal slope,	Clearfield,	1	79	11	2	7		88	1	5	1	7	95
Robertsdale,	Huntingdon,	2	185	17	6	18	7	232	4	13	2	19	251
Somerville Nos. 1 and 2,	Clearfield,	2	129	30	4	8	1	178	1	2	3	6	184
Sugar Camp Nos. 1, 2 and 3,	Centre,	2	134	10	2	4	3	153	2	5	2	9	162
Tunnel,	Centre,	1	19			1		21		3		3	24
Tipton,	Blair,	1	20	3	1	2		28		3	1	3	31
Urey Nos. 1, 2 and 3,	Indiana,	2	137	5	3	8	4	157	1	4	2	11	148
Woodvale shaft,	Huntingdon,	1	99	4	4	9	3	120	3	12		15	135
Total,		61	3,625	340	122	297	82	4,767	69	419	73	561	5,097

TABLE No. 4.—*List of fatal accidents that occurred in and about the mines of the Tenth Bituminous Mine District, for the year ending December 31, 1895.*

Date of accident.	Name of Person.	Occupation.	Age.	Widow.	Number of orphans.	Name of Colliery.	Location—County.	Nature and Cause of Accident.
Jan. 7,	Louis De Turck	Miner,	28			Robertsdale,	Huntingdon,	Killed by a fall of coal. He was undermining the coal and had no sprags set, when the coal fell from a slip, killing him instantly.
April 23.	Swan Pearson,	Miner,	60	M.	3	Grass Flat,	Clearfield,	He was engaged in drawing back a pillar and was undermining at the loose end, when a large piece of bone coal fell upon him, killing him. There was a slip running through the coal, and bone coal up to the roof, and in undermining, the coal fell away from this slip.
Oct. 28,	George Bomba,	Miner,	30	M.	1	Glenwood No. 4,	Indiana,	He with another miner was engaged in drawing back a pillar and the roof commenced to break down, and he was struck by a rock, killing him instantly. He was warned by his fellow workmen to come out, but would not heed their warnings, as he thought he was safe.
Nov. 29,	John Thompson,	Trapper,	13			Urey No. 3,	Indiana,	He had left his door and gone up the heading with the driver, and in running in front of the trip he fell and the loaded cars ran upon him, killing him.
Dec. 17,	James Hood,	Miner,	41	M.	6	Blands,	Cambria,	Was engaged with his boys in drawing back a pillar, and while he was undermining, coal which was loosened by a previous shot fell upon him and killed him instantly.

TABLE No. 5.—*List of non-fatal accidents that occurred in and about the mines of the Tenth Bituminous Mine District, for the year ending December 31, 1895.*

Date of accident.	Name of Person.	Occupation.	Age.	Widow.	Name of Colliery.	Location--County.	Nature and Cause of Accident.
Feb. 5,	Andrew Chambers,	Miner,	....	....	Sugar Camp,	Centre,	Hurt on the body by a fall of rock.
7,	Thomas Heath,	Driver,	44	M.	Robertsdale,	Huntingdon,	Hand badly mashed by wheels of loaded car.
14,	John Piffer,	Miner,	....	....	Moravian,	Clearfield,	Leg broken by a fall of coal.
15,	William Houston,	Trapper,	....	....	Gazzam No. 1,	Clearfield,	Leg broken by falling under loaded cars.
22,	William McKean,	Miner,	37	M.	Careytown,	Centre,	Nose fractured and otherwise injured by a fall of top coal.
Mar. 7,	Joseph Svroakack,	Miner,	....	....	Moravian,	Clearfield,	Ankle broken by a fall of rock.
8,	William Bell,	Miner,	56	M.	Urey No. 1,	Indiana,	Collar bone broken by a fall of coal.
30,	James Kidley,	Rockman,	....	....	Robertsdale,	Huntingdon,	Back and side hurt by a fall of rock.
April 4,	Maurice Bivens,	Miner,	22	M.	Cumberland,	Bedford,	Injured in the eye by a piece of steel flying from his wedge.
11,	Abram Ballman,	Miner,	38	M.	Cumberland,	Bedford,	Shoulder dislocated by a fall of coal.
May 14,	Peter Stephenson,	Driver,	28	M.	Urey No. 1,	Indiana,	Leg broken by being caught between cars.
June 24,	Jacob Kelso,	Miner,	53	M.	Woodvale,	Huntingdon,	Shoulder crushed and injured internally by a fall of coal.
July 13,	Charles Shafer,	Dumper,	18	S.	Woodvale,	Huntingdon,	Foot crushed by a car running over it.
17,	Grant Dodson,	Driver,	22	M.	Crescent,	Bedford,	Foot hurt by a fall of rock.
19,	Charles Brown,	Trapper,	13	....	Robertsdale,	Huntingdon,	Foot and knee hurt by being caught between cars.
23,	Jos. W. Horton,	Miner,	56	S.	Cumberland,	Bedford,	Back hurt by a fall of rock.
27,	Walter Berkstresser,	Miner,	27	S.	Woodvale,	Huntingdon,	Leg broken by a fall of rock.
Aug 21,	Charles Meyers,	Dumper,	....	M.	Robertsdale,	Huntingdon,	Leg broken by being caught between loaded cars which jumped the track.
28,	William Woomer,	Driver,	30	M.	Woodvale,	Huntingdon,	Collar bone broken by a fall of rock.
Sept. 9,	Albert Moorhead,	Miner,	24	S.	Fricks,	Cambria,	Knee bruised by a fall of middle rock.
Oct. 2,	James Ryder,	Miner,	31	M.	Crescent,	Bedford,	Hurt by a fall of roof.
25,	George Donaldson,	Miner,	....	....	Kearney,	Bedford,	Leg broken by a fall of rock.
Dec. 13,	Peter Tromer,	Miner,	44	S.	Crescent,	Bedford,	Hurt by a fall of coal.
18,	Geo. Batzel,	Miner,	20	S.	Cumberland,	Bedford,	Arm broken by a fall of coal.
18,	John Long,	Miner,	35	M.	Tunnel,	Centre,	Ribs broken by a fall of roof.

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AN ACT

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